
The Adaptation of the Family System to Separation and Reunion:

An exploratory study of military families

A thesis submitted in partial fulfilment
of the requirements for the Degree
of
Master of Arts
in Child and Family Psychology
in the University of Canterbury

By
Wade Alexander Stent
University of Canterbury, New Zealand
April, 2014

Acknowledgements

I would like to thank my primary supervisor Myron Friesen, for his assistance in getting this thesis started and guiding me along the way. I also wish to thank Michael Tarren-Sweeney, for his knowledge of aspects of the military I had not considered and aiding in the final push to submission. Both have stimulated my learning and progression along this journey, pushing me beyond limits that I would be incapable of passing without their backing.

I am grateful to the New Zealand Defence Force for allowing me to pursue research within the area and providing an amazing support team of numerous individuals, who have stepped in whenever needed. This thanks extends to the participants employed by the New Zealand Defence Force, as without their contribution none of this would be possible. I hope that the work I have done does them justice and can be used to support others in the future.

To all my comrades in Wheki 251, I thank you for the support, laughs and lunches that you have provided across the course of my thesis. This extends to all the Child and Family Psych kids I have met and formed friendships with. This especially goes to ‘thesis wing woman’ Lisa, who has shared the journey alongside me, swapping banter and stories. Additionally, Sammy and Chris who both stepped up to the mark and helped me reach the end goal, as well as providing good discussion to get things moving.

A big thanks to my parents, Annette and Garry for raising me and supporting me in whatever I did, all while encouraging me to reach this point. You have both been great sources of support over the years and I thank you immensely for this. To my siblings, Connor, Jake, and Alexa for being there through it all. Additionally, I thank the Alsops for basically being family and also encouraging me.

I owe a huge debt of gratitude to my partner Sophie, for showing unending support, love and tolerance, even when moments were tough. I definitely could not and would not have gotten this far without you being there. I owe you more than I could ever repay.

Abstract

Extended periods of parent-child separation is a stressor that some families face due to vocational factors, immigration, incarceration and other interruptions in family living arrangements. Research suggests that these families are at increased risk for child behavioral and academic difficulties, mental health issues, and other psycho-social challenges. Within military families, extended periods of separation are relatively common, but are also compounded by additional risks that accompany a military deployment. The present study employed a cross-sectional mixed-methods research design to examine adaptations that occurred across the deployment cycle in a sample of 28 military couples (with at least one child), who had recently experienced a deployment. Quantitative analyses showed that the military parents found the post deployment period more challenging than the pre deployment period, while the home parents rated the deployment period as the most challenging. Additionally, a number of interesting associations were found; for example, increased military risk during deployment was linked with higher relationship satisfaction and reduced mental health challenges after deployment. Qualitative analyses supported these interesting findings and provided examples of common resilience factors across these families along with additional indicators of how these military families adapted to separation and reunion. Results are discussed in regards to how they align with family systems theory and previous research in the area.

Table of Contents

<u>Acknowledgements</u>	i
<u>Abstract</u>	ii
<u>Table of Contents</u>	iii
<u>List of Tables and Figures</u>	viii
<u>Chapter ONE: Introduction</u>	1
PART I: Overview of Family theories	4
Attachment Theory.....	4
Ecological Systems and Bio-Ecological Theory.....	6
Family Systems Theory.....	9
Contemporary Family Systems Theory.....	12
PART II: The effects of family separation	16
Divorce.....	17
Parental Incarceration.....	21
Migration.....	24
PART III: An overview of Military Deployment	27
Theoretical Processes of Deployment effects.....	27
Overview of Impacts experienced due to Deployment.....	31
Part IV: Current Study	36
<u>Chapter TWO: Method</u>	38
Design.....	38
Ethics.....	39
Participants.....	39
Procedure.....	44
Measures.....	45

Independent Variables	45
<i>Strength and Difficulties Questionnaire</i>	45
<i>Deployment Risk Factors</i>	47
<i>Family Crisis Orientated Personal Evaluation Scales</i>	47
Dependent Variables	49
<i>Parenting Behaviour</i>	49
<i>The Perceived Relationship Quality Components scale</i>	50
<i>Family Communication Scale</i>	51
<i>Family Satisfaction Scale</i>	51
<i>Brief Mental Health Screening Tools</i>	53
<i>Interview Questions</i>	54
<u>Chapter THREE: Quantitative Results</u>	57
Data Analysis	57
Findings	59
Descriptive Statistics	59
Change Over Time: Child Behaviour and Family Coping	61
Bivariate Associations	65
Path Analysis with Structural Equation Modelling (SEM)	67
<u>Chapter FOUR: Qualitative Results</u>	72
Data Analysis	72
Findings	74
External Support	74
<i>Community Support</i>	74
<i>Family & Friend Support</i>	75
Beneficial Outcomes	75

<i>Financial Benefit</i>	76
<i>Improved Relationship and Appreciation</i>	76
<i>Resilience & Perseverance</i>	77
<i>Positive lifestyle change</i>	77
Positive Coping Strategies	78
<i>Communication</i>	78
<i>Routine, Structure, and Milestones</i>	79
<i>Deployment Experience</i>	79
<i>Reintegration</i>	80
Core Family	81
<i>Children</i>	81
<i>Partner</i>	82
New Zealand Defence Force (NZDF)	82
<i>Job on Deployment</i>	83
<i>Relocation</i>	83
<i>NZDF Support</i>	84
<i>Confidentiality</i>	85
<i>NZDF's Organisation of Deployment</i>	85
Difficulties	86
Suggestions	87
Cultural Considerations	88
<u>Chapter FIVE: Discussion</u>	90
Review of Results	90
Family re-adjustment after a military deployment	91
Associations between deployment factors and current functioning	92

Resilience factors and avenues of support across deployment	94
Facilitation of family transitions across deployment	94
Link between research findings and previous research	95
Risks of separation: factors specific to military deployment	96
Adaptations in response to parental separation	98
Readjustment after separation	102
Summary	106
Link between research findings and family systems theory	107
Strengths of the Current Study	111
Limitations of the Current Study	113
Applications, suggestions and directions for future research	114
Conclusion	116
<u>References</u>	118
<u>Appendices</u>	130
Appendix A: Ethics Approval from University of Canterbury	130
Appendix B: Research Approval from New Zealand Defence Force	131
Appendix C: Information Sheet	132
Appendix D: Consent Form	134
Appendix E: Debrief Sheet	135
Appendix F: Quantitative Measures	137
Strength and Difficulties Questionnaire (SDQ)	137
Family Crisis Orientated Personal Evaluation Scales (F-COPES)	139
Parenting Behaviour	141
The Perceived Relationship Quality Components scale	143
Family Communication Scale	144

Family Satisfaction Scale	145
Patient Health Questionnaire	146
Generalised Anxiety Disorder scale	147
Primary Care Post Traumatic Stress Disorder (PTSD) screen	148
Appendix G: Qualitative Measures	149
Demographics	149
Qualitative Questions following the SDQ	151
Qualitative Questions following the F-COPES	152
Qualitative Questions concerning Māori cultural factors	153
Semi structured Interview questions	154

List of Tables

Table 1. Demographic background of participating military families.....	42
Table 2. Current Functioning of Military and Home Parent.....	60
Table 3. Repeated Measures Analysis of Variance indicating change through Deployment.	63
Table 4. Bivariate zero-order correlations across independent and dependent variables..	64
Table 5. Accompanying labels for pathways as represented in Figure 1.....	68

List of Figures

Figure 1. Structural Equation Model pathways utilised for analyses.....	68
Figure 2. Structural Equation Model for family communication and satisfaction, standardized coefficients added.....	71

Chapter ONE

**“Call it a clan, call it a network,
call it a tribe, call it a family.
Whatever you call it, whoever you are,
you need one.” (J. Howard, Families, 1998)**

Family is more than shared genetics or structural and functional arrangements between adults and offspring; it consists of individuals characterized by shared history, emotional bonds, and consistent relationships (Anderson & Sabatelli, 1995; Caligiuri, Hyland, Joshi, & Bross, 1998; Boss, 1999; Minuchin, 1974). This broad conceptualization is used in family systems theory and provides a framework for studying families that incorporates key elements that all families share, while recognizing the potential for a diversity of family forms. Another important feature that is common to all families is the notion of change. As a system, families are in a constant state of change, with members growing and developing through different stages of their life course each in their own unique way; which makes maintaining relationships overtime a difficult challenge. Typically these changes are progressive, yet sometimes rapid alterations are needed such as accommodating a death, a birth, or hospitalisation. Changes can alter the level of stress that families can experience to varying degrees. When stress is maintained adaptation should occur through altering family dynamics, boundaries, roles, or reassigning responsibilities, and in doing so allows the family to continue functioning at optimal levels.

Although generally viewed as a negative occurrence, separation of a child from their parent can become a normative part of a family's experience. This may be due to jobs such as being a truck driver, tour guide, business executive, or pilot. As the separation occurs often

and is a part of the family experience the changes and alterations required almost become normative. Conversely, there are separations such as divorce, incarceration or migration that have been linked with negative effects on the entire family system. Impacts on children have been found to include decreased academic performance, increased behaviour difficulties or mental health concerns (Sun & Li, 2002; Murray & Farrington, 2005; Suarez-Orozco, Bang, & Kim, 2011). However, the impact separation has on the family as a whole is difficult to study due to numerous relationships that make up one family system. Children are usually targeted for examination because as family systems theories have speculated, children are likely to externalise issues in family processes as other difficulties (Minuchin, 1974). For example, child misbehaviour may result from difficulties in the parental relationships, which alters how they communicate with the child and exacerbate any issues. As child behaviour is easier to measure in this example, it typically becomes the target of research with assumptions made around the causes and processes.

Military families are a group that frequently experience separation, as well as a number of threats and potential difficulties that are seldom found in other families. These can include regular relocations, safety and mortality risks, or frequent and extensive separations (Palmer, 2008). Although only one parent tends to be employed by the military, the stress associated with this vocation can be experienced by the entire family. The remaining parent faces a number of challenges in maintaining family life during times of military deployment, such as retaining routines and a sense of normality for the rest of the family. As well as the difficulties of running the family during the deployment, the remaining parent has to help negotiate changes once the parent returns from deployment and reintegrates into the family system (McFarlane, 2009; De Pedro et al., 2011).

Research surrounding military deployment has shown negative outcomes for children of military personnel such as decreased academic performance (Phelps, Dunham, & Lyons,

2010), increased mental health problems (De Pedro et al., 2011), increased behavioural difficulties (Wilson et al., 2011), decreased personal and emotional adjustment (Pfefferbaum, Houston, Sherman, & Melson, 2011) and confused attachment behaviour when the deployed parent returns (Barker & Berry, 2009). Additionally, links have been found between the time parents spend deployed (length and number of deployments) and the impacts experienced by children (Phelps, Dunham, & Lyons, 2010). Within this research area there is little examination of the entire family, with child based effects being assumed to be an externalisation of the potential effects on the family as theorised by family systems theory.

The current study sought to explore how families adapt across a deployment cycle. Interviews focused on the perceived impacts and how families adapted in response to separation and the following reunion. A number of variables were examined, including child behaviour, coping strategies, parenting behaviour, relationship satisfaction, family communication and satisfaction, as well as parental mental health. The examination of how families adapt to deployment is important as there are a number of factors that need to be better understood to protect these individuals from developing long term issues. Within New Zealand (as of February 2014) there are approximately 4,500 individuals employed by the military (New Zealand Defence Force, 2014), which is a small portion of New Zealand's estimated population of 4,500,000 (Statistics New Zealand, 2014). However, the risks faced for military personnel and their family can be detrimental, as will be discussed. Consequently, if the processes of adaptation surrounding separation are understood it is possible that findings could be generalised to a number of other domains where families face separation, and would allow a larger number of individuals to be supported in their transitions.

PART I: Overview of Family theories

Within family based research, there are various theories that have been employed to examine individual development within family relationships (most notably parent-child relationships), dyadic adjustment, and overall family functioning and adaptation. Some of the more influential theories include attachment theory (Bowlby, 1969; Ainsworth, Blehar, Waters, & Wall, 1978), ecological theory (Bronfenbrenner, 1989; Bronfenbrenner, 2005), and family systems theory (Bowen, 1985; Minuchin, 1974). Family based research is difficult as each family unit differs greatly, even when comparing different generations of one extended family group. The following discussion emphasises the key points and processes of several theories that have been used within family based research.

Attachment Theory. Attachment based research generally concerns the examination of the relationship between a parent and their child in developmental psychology. This theory was developed to explain the varied relationships that develop between a child and their primary caregiver over repeated interactions (Bowlby, 1969; Ainsworth et al., 1978). Attachment relationships within a developmental perspective are categorised as secure, avoidant, ambivalent, or disorganised (Ainsworth et al., 1978). Securely attached children utilise the parent as a safe base to explore the environment, are easily soothed, and readily return to play and exploration following a stressor. Avoidant attachment is characterised by emotional and physical independence of the child, who will typically not seek the parent when distressed. An ambivalently attached child responds to parents with distress and clingy behaviour, while rejecting the parent (Ainsworth et al., 1978). Lastly, disorganised attachment is indicated by confused attachment behaviour or fear in response to the parent (Malekpour, 2007; Main & Solomon, 1990). Attachment relationships are theorised to be formed based upon caregiver responses to the child and sensitivity to their needs (Ainsworth et al., 1978). Theoretically, the attachment relationship formed during childhood impacts

further relationships by becoming a schema or internal working model that is used to navigate new social interactions. This schema provides individuals with the perception that other individuals respond in a similar manner to the original attachment figure, whether positive or negative (Bowlby, 1969). More recent theorists have expanded upon this point through integrating theory of mind research, which is considered the ability of individuals to understand others' thoughts, emotions, and intentions based upon their behaviour. As theory of mind considers the interpretation of others' thoughts and intentions based upon their behaviour, its incorporation into attachment research clarifies the process of how relationships affect interactions through altering the expectation of what may happen based upon early experiences (Fonagy, Gergely, Jurist, & Target, 2002; Hazan, & Shaver, 1987).

A number of studies have indicated beneficial outcomes for children when a secure attachment relationship is present, such as increased independence, cooperation, compliance, resilience and socialising (for a review see Malekpour, 2007). Extending beyond the interpersonal and social research has also shown that a secure attachment relationship predicts better academic achievement, at both primary and secondary school (Pianta & Harbers, 1996; Teo, Carlson, Mathieu, Egeland, & Sroufe, 1996). Conversely, insecure and disorganized attachment styles have been associated with psychopathology (e.g., depression, anxiety), behavioural issues, vulnerability to environmental stressors, and hostility towards others (for a review see Malekpour, 2007). Parent-child separation is an event that can alter the attachment relationship due to the absence of a parent; however, this is thought to be dependent upon the age of the child. It is assumed that most children who experience separation from a caregiver resume normal development, but there are a small number who are unable to recover and re-establish an attachment relationship. Temporary detachment from the parental figure is deemed unhealthy, due to a possibility of not being able to re-establish the connection or developing anxiety in response to separation, which would be

indicative of over attachment (Bowlby, 1969). However, if the period of separation is not prolonged attachment can be re-established, but difficulties can be present when this connection is being negotiated. This was examined within a study by Woodward, Fergusson, and Belsky (2000), which measured the perceived attachment of a sample of over 900 adolescents. Participants had been extensively measured since birth on a number of variables, with the main focus of the current study being the association between timing of parental separation (in relation to divorce) and perceived attachment at adolescence. It was found that there was a significant association with earlier parental separation, predicting lower levels of attachment to parents at adolescence. Due to the longitudinal nature of the data, the researchers were able to control for confounding factors such as social background, inter-parental conflict, early childhood behaviour, and mother-child interactions. A highly significant association was still present when a large number of confounding variables were controlled across the sample, with earlier parental separation predicting lower attachment relationship, when compared to those who faced separation later on. Since its development through the observational experiments by Bowlby (1969) and Ainsworth et al. (1978), the influence of attachment theory in developmental and social psychology has been extensive and the breadth of the research in these areas is vast. However, the primary focus of the work has always been at the individual and dyadic levels. Attachment theory does not adequately account for the dynamic processes across multiple relationships that shape family functioning and adjustment at the wider system level.

Ecological Systems and Bio-Ecological Theory. Ecological systems theory (Bronfenbrenner, 1989), examines the influence of a diverse range of environmental contexts on individual development. The closest level to the individual is the ‘microsystem’, which includes the environment that individuals interact with directly. Bronfenbrenner suggested that this most proximal system has the most direct influence on development and can include

home, school, work, and the individuals within these domains. The 'mesosystem' is sets of microsystems that involve the individual, and can interact between domains, such as home life altering how an individual operates at school. Whereas environments in the 'exosystem' do not directly involve the individual, but can impact them by altering those they interact with. An example is added stress at a parent's work, which has no direct impact on the child, but can alter how the parent interacts with the child within the home environment. Finally, the 'macrosystem' overarches these systems and is understood to include the culture or society an individual is within and the impact it has on these other systems (Bronfenbrenner, 1989). These systems are inter related, with changes occurring in the broader, more distal systems filtering down to influence more proximal systems. For example, a change at the Macrosystem level, such as the election of a new government, does not directly involve the child or their family, but can be impact them, possibly altering the parent's work environment at the Exosystem level through taxation or legislation. The effect on a child of these environmental conditions is generally mediated by changes in the Microsystem, changing the home or other proximal environments. The ecological systems theory shares the view that an individual has an active, dynamic role within their environment, interacting bi-directionally with mutual influence between each domain (Darling, 2007).

The bio-ecological theory (Bronfenbrenner, 2005) superseded the ecological systems theory and defines components as interrelated, with reciprocal influence between all domains, and maintains majority of the above stated components (Darling, 2007; Bronfenbrenner, 1989). The central concept of the bio-ecological theory is the bi directional relationship between genes and environment, where an individual's potential characteristics are determined by genes (genotype), and the environment determines what features are expressed (phenotype). For example, if a child is neglected or abused by their parent it can act as an environmental trigger for certain genetic predispositions (genotype) and can result in

maladaptive behaviour or personality type (phenotype). This would alter the parental interactions with the child; creating a bi directional reciprocal loop of transactions (Bronfenbrenner, 2005). Initially as a child, the interaction between genes and environment is mediated by parental efforts. Gradually transactions become more complex due to increased exposure to different environments such as school, social networks, work, and the individuals within each system; this gives the individual more influence over their own development (Bronfenbrenner, 2005). From this theoretical perspective, an individual can only be understood when examined in relation to their context, the environment, and interactions that occur (Bronfenbrenner, 1989; Bronfenbrenner, 2005). However, interactions are bi-directional with the individual shaping the environment through their transactions and vice versa (Darling, 2007; Bronfenbrenner, 2005).

The bio/ecological systems theory allows an examination of a large number of transactions that may occur and the potential impact upon family dynamics. For example, if a child's misbehaviour was examined, it can be expanded to determine the effect on each member within the family who directly interacts with the child. This may alter how the parents interact with the child, and they may start to discipline more harshly. Taken further, it could be seen to impact how these members (such as each parent) interact with one another, possibly altering their relationship and may impact how they interact with other systems such as work or the community. However, as all the systems are linked, the child misbehaviour may just be an expression of difficulties at another level, such as issues with the parental relationship. With a varied number of systems and levels that can affect a family, examination is required in relation to the transactions between them and where issues may initially be present before causing detriment. A remarkable level of detail and analysis is possible, but it does not examine the family succinctly. It instead focuses on an individual and the environment or various systems that extend far beyond the family unit. Analysis can

expand far beyond the family unit very quickly to consider multiple external factors that can be impacting them, such as neighbourhood, work place, or society and include the impact of these factors on gene expression or vice versa. Based upon the amount of detail possible, analysis can go from succinct to extensive after the examination of a few transactions, due to the complexity of an individual's interactions and could become too broad if an entire family unit were examined.

To summarise, attachment based research examines the relationship between two people, but can be used to compare multiple relationships to determine deficits and their impact. Bio ecological theory and ecological systems theory both look at multiple interactions between an individual, their environment, and other transactions, which involves analysis at multiple levels. These theories were not utilised in the current study based upon the amount of detail that can be examined. Although theoretically these theories can be utilised in examining families, each appears better suited to examining individuals with exhaustive detail, but would become too expansive if utilised in examining an entire family.

Family Systems Theory. The examination of families is difficult with factors at multiple levels to consider (e.g., individual, dyadic, triadic, whole system), which has led to the consideration of family systems theory that incorporates the complexity of families by examining transactions between family members, opposed to defining and categorising these. Family systems theory evolved from general systems theory, which was primarily developed by Bertalanffy (1967). It was initially utilised within biological sciences, but was proposed as applicable to a number of scientific domains. System research focuses on the understanding that all components are interrelated and have common behaviours, patterns or properties, which are utilised to understand complex phenomena (Bertalanffy, 1967). Clear boundaries separate systems from the environment and other systems, varying between a closed or open system based upon the strength of boundaries. With these altering the amount of impact the

environment or other systems have upon the system of focus. Feedback loops involve information that a system receives from the environment and can result in change for the system (positive) or a return to established patterns (negative). Systems work to maintain equilibrium, but overtime this can become maladaptive if adaptations do not occur; as change is required for growth (Minuchin, 1974). The theory understands a level of complexity is involved, yet the processes of one system are made the focal point to allow phenomena to be examined succinctly.

Family system theory gradually evolved from systems theory through the work of Bowen (1985) who expanded on general systems theory. Initial work focused on the nuclear family emotional process, which depicted a family's range of relationship patterns between two people when stress is present. These include four main patterns, which are conflict, emotional distance, projection (of the issue onto a third person) or triangulation, and one person lowering their own functioning to maintain the relationship (Bowen, 1985; Hargrove, 2009). It was proposed that these relationship patterns could be utilised to explain how a relationship between two people deals with stress in the coalition. The above concepts of equilibrium, feedback loops, and boundaries were easily adapted to understand families when they were considered as a system. Within family systems theory, families are connected through the proximity and the presence of individuals that determine the relationships that form the system (Caligiuri et al., 1998; Boss, 1999; Minuchin, 1974). All coalitions are formed, maintained, and altered through communication, which may be direct verbal communication or other behaviour that conveys information (Bavelas & Segal, 1982). Due to the nature of coalitions across individuals, events or stress that impacts one member can affect all members by altering the interactions between those members. This subsequently impacts how they interpret or respond to other internal subsystems (e.g., parent-child, parent-parent, brother-sister) or external systems (e.g., work, school, neighbourhood) (Hargrove,

2009). Family systems are not exclusive, as individuals within the family system are members of other systems such as work, school, or social systems that involve others and can impact the family system (Bavelas & Segal, 1982).

Minuchin (1974) proposed that when transactional patterns within a family system are established they become the equilibrium that the system attempts to restore when pushed beyond its tolerance for change. A range of patterns is required to allow for adaptation when changes occur or stressors are present, but is dependent on transactions between members (Minuchin, 1974). An example of this process would be the interaction between a parent and their child, at younger ages there is a dependence of the child on the parent and this becomes the usual transaction between the two. However, as children grow into adolescents this reliance diminishes and without change or allowing different interactions to occur, difficulties can ensue. Initially, some families may face an attempted return to the equilibrium of expecting the child to be reliant upon the parent, if they are not able to adapt, which would undermine the adolescent's independence. Communication is an important factor within and between systems, as it promotes the creation and maintenance of equilibrium, feedback loops, as well as appropriate boundaries in response to stress or adaptation. At certain periods of development, families must restructure to accommodate individual growth or additional members in conjunction with adaptation to external factors, such as the progression of society, economy, or politics. Ultimately, a family's equilibrium is in a constant state of flux due to these internal and external factors, with a healthy family being identified as sufficiently able to adapt to stressors through renegotiation of system structure and equilibrium, while still maintaining a sense of normality (Hale, 1988).

Early in its development, family systems theory was readily utilised in the therapeutic treatment of families. Klein, Alexander, and Parsons, (1977), worked with 86 families of children who had committed minor crimes. Each family was randomly assigned to one of

four treatment conditions (no treatment controls, eclectic dynamic approach, client centred family approach, and family systems focused). Family systems based therapy focused upon modifying interactions within the system, through improving clarity, precision and reciprocity of communication emphasising the equal rights and responsibilities of all family members. Family systems therapy was found to be beneficial to families in reducing delinquency (as indicated by recidivism rates 6 to 18 months post intervention and court records 2 to 3 years post intervention), with benefits being comparably better than other treatment conditions and the control group. Initially family systems theory research was largely theoretical or therapeutic, without any clear strategy for measuring family systems, and focused upon theoretical assumptions of what may be occurring, which were then utilised in therapy.

Contemporary Family Systems Theory. More recent family systems theory development has focused on combining the various proposed concepts into measureable dimensions to make the theory testable. An example of this was Olson, Russell and Sprenkle (1983) who analysed terms used in past family systems theory research and unified them into three distinct dimensions; cohesion, adaptability and communication. The unification into separate dimensions has allowed family systems theory to become a more measureable theory, moving beyond theory alone. This is utilised by other contemporary family systems theorists and researchers in the area, as it represents a succinct understanding of family systems, instead of numerous abstract theoretical concepts (Beavers & Voeller, 1983; Caligiuri et al., 1998). This alteration represented the unification and accommodation of past research, along with Bowen (1985) and Minuchin's (1974) theoretical tenets.

Cohesion broadly refers to the level of bonding or closeness between family members (Lavee and Olson, 1991). The concept of family cohesion evolved from older concepts including boundaries and coalitions, outside relationships, decision making, and other factors

that influence the degree of closeness between members (Lavee and Olson, 1991). When cohesion is too high families become enmeshed, where individuals begin to over identify with one another, which is proposed to reduce individualisation and increase psychopathology due to members becoming more susceptible to other members' problems. At the other extreme, when cohesion is very low then families are considered disengaged, where individualisation and autonomy are encouraged, while members have little commitment to the family. It is theorised that families exist upon a continuum somewhere between disengaged and enmeshed, with each differing while a healthy family is expected to balance in the middle (Olson et al., 1983). While a coalition describes the relationship between two family members, cohesion is more representative of the whole family system and the overall level of connectedness within the web of relationships.

Adaptability is another core theme that has been identified alongside cohesion, it refers to the ability of a family to “change its power structure, role relationships, and relationship rules in response to situational and developmental stress” (Olson et al., 1983, p. 2). Concepts associated with adaptability include family power, roles and relationships, morphostasis (ability of the system to hold shape), morphogenesis (ability of the system to change shape), and feedback (Munton and Reynolds, 1995; Olson et al., 1983). For a family to function effectively it requires a balance between change and stability; otherwise a family can become chaotic or overly structured, both leading to difficulties (Olson et al., 1983). A family's adaptability is impacted by their tolerance for change. As mentioned above, if a family system moves beyond their threshold for change, the system will attempt to return to equilibrium, and if this threshold or their adaptability is low, any changes that occur will be counteracted to maintain equilibrium (Bavelas & Segal, 1982; Minuchin, 1974).

Effective communication between members facilitates adaptations and coalitions within the system (Munton & Reynolds, 1995). Through communication, adaptations can be

negotiated within the family system, and interactions between members may alter. Returning to the previous example of adolescents developing independence, the change is negotiated through communication that may be verbal by parents stating their acceptance of this change and quest for independence. However, it can also be non-verbal through gestures or body language, such as reducing physical or eye contact as negative responses to the adolescent's strive for independence. Although verbally the parents may approve, non verbal responses can have an impact upon their relationship and whether adaptation occurs or if it becomes halted. A balanced family is identified as having a strong connection within the system but not to the level of enmeshment and are required to be fairly adaptable, but these factors are heavily impacted by the level of communication within the system. Families that are considered more balanced have been indicated to fare better in regards to mental health, marital adjustment, coping with stressful events, and juvenile offending (Lavee & Olson, 1991; Munton & Reynolds, 1995). Through further research, it became apparent that categorisation of healthy families could be determined through the system's level of communication and satisfaction (Akhlaq, Malik, & Khan, 2013; Olson & Gorral, 2003). Higher scores of communication and satisfaction were identified as indicators of positive family wellbeing, as with communication families can negotiate adaptations and maintain strong relationships, which they are likely to be satisfied with.

This adapted version of family systems theory has been utilised within research with communication, adaptability, and cohesion becoming measureable dimensions, which are theorised to represent overall family functioning. A number of studies have examined these family functioning variables to gauge a family's level of functioning and compare it to additional outcomes. For example, a study by Kashani, Allan, Dahlmeier, Rezvani, and Reid (1995), compared 11 children with depression to 11 children without, on measures of family adaptability and cohesion. Their results indicated that family cohesion or connectedness was

associated with child depression, where depressed children indicated less cohesive families. Therefore, suggesting a significant impact of family connectedness and the relationships within the family system, where difficulties in these relationships can be expressed through child depression as suggested in this instance. Alternatively, it may represent that child depression could impact family functioning and the connections between family members. However, levels of adaptability were largely similar between the groups. The researchers noted limitations within the study sample as depressed participants were sourced from an inpatient psychiatric unit, indicating biases. They also suggested that additional factors of family units should be examined to further disentangle the multitude of potential effects. Additionally, a study by Smets and Hartup, (1988) examined 120 families and found that children in balanced families had fewer behavioural issues compared to those in extreme family types (indicated by high versus low cohesion or adaptability). They only measured intact families to limit some confounds associated with family separation and divorce, with families being largely similar in regards to social economic status. Researchers suggested that further research would be needed to better understand the underlying processes. These studies are indicative of triangulation, which as theorised by Bowen (1985) is when a two person relationship cannot function so a third individual is then involved, where communication concerns the dissatisfaction in the two person system. For example, there could be dissatisfaction in the parental relationship and the child may be involved in the discussion, which may result in the expression of these child based difficulties. As studies commonly list difficulties with children, it could be assumed based upon this theoretical tenet that these difficulties are an expression of issues in family cohesion.

In summary, cohesion is the connection between members within the family system, the strength of that connection, and concerns how it is established or maintained. Adaptability is relatable to Minuchin's (1974) concept of equilibrium, which represents a system's

threshold for change, how it is altered, and what occurs when stress is present. Several contemporary theories emphasise these components and utilise them in determining the level of functioning within a family system (Olson et al., 1983; Beavers, 1981). Family communication is focused upon due to its role in altering relationships, transactions, and responses to stress; it can be indicative of family functioning and has been utilised previously as a proxy variable (Bavelas & Segal, 1982; Akhlaq et al., 2013). This succinct version of family systems with a focus upon communication, adaptability, and relationships allows a streamlined analysis of families, without the focus upon how or why these components exist, but instead encourages examination of the processes or stressors a family navigates. It can be assumed that difficulties in relationships, communication, and a lack of adaptability can result in issues for the family system and as shown in the above examples (Kashani et al., 1995; Smets & Hartup, 1988) these may be expressed as child difficulties.

PART II: The effects of family separation

From a family systems theoretical perspective, a family works best when it is adaptable; not too fluid to be chaotic, and not too rigid that change is impossible. Additionally, the process of adaptation depends upon the cohesiveness of the family system. A disengaged family system has individuals who may not have any loyalty to the system and refuse changes or not be involved in the negotiation. On the other hand, an enmeshed family system has individuals so tightly connected that small issues can ripple through the entire system requiring frequent system-wide change (Olson, 2011). Finally, none of this can be achieved without communication as it is the glue that maintains family units while allowing negotiations or adaptations to occur (Akhlaq et al., 2013; Olson, 2011). Nevertheless, change is a standard part of normal development for all systems, and for a family to be considered healthy they are required to be adaptable, being able to negotiate the novel or more expansive changes that may be experienced. A significant period of separation between family members

is a stressor requiring adaptation that many families experience. Separation can either be normative, within families where it is required for employment such as a truck driver or pilots. Yet separation can also be more sudden and unexpected requiring rapid adaptation; for example, death, or hospitalisation. Within cases where separation is temporary there may be a need to alter the family's equilibrium at the point of separation and once again at reunion. These stages requiring adaptation are theorised to result in potential difficulties while changes are negotiated or stress is minimised, with communication enabling effective adaptation. Follows is a discussion of several instances in which separation is deemed normative, considering difficulties that may be experienced due to the separation event and in some cases the reunion.

Divorce. One particular type of separation that occurs often is marital separation and divorce, which typically involves some form of separation of children from one parent or both, depending on the caregiving arrangements. Shared caregiving and day-to-day care is becoming more common after parental separation and involves children spending equal amounts of time between both parents (Jablonska & Lindberg, 2007). Following divorce, families can face disruptions in functioning, and behaviour or emotional issues, which are typically due to adjustment to new roles, routines, and responsibilities based on the change in family structure (Hetherington, 1989; Jablonska & Lindberg, 2007). The events surrounding divorce vary widely between families and could represent the first in a number of transitions, which can include custody negotiations and arrangements, relocation, or potential remarriage (Hetherington, 1989). It has been suggested that majority of divorced individuals remarry, but divorce rates increase with each subsequent marriage and may represent a recurring stressor (Hetherington, 1989). Additionally, it is likely that parents function as solo parent families during an interim period. Research has suggested that on average children face two to three

years of destabilisation following a divorce before they adapt to the new situation, or the factors surrounding it subside (Hetherington & Kelley, 2002; Hetherington, 1989).

Studies have suggested that living in a divorced family unit is associated with adjustment problems, emotional and behaviours issues, and increased risk for substance abuse (Jablonska & Lindberg, 2007; Zill, Morrison, & Coiro, 1993). There is also an increased likelihood of school dropout and receiving psychological help, compared to children who do not experience divorce (Zill et al., 1993; Moore, Jekielek, & Emig, 2002). In a study by Hetherington, Cox, and Cox, (1985) children of 144 families were examined in a longitudinal design, half were from divorced families and the other half was from intact families. These children were followed up at two years post-divorce; boys showed an increase in antisocial and aggressive behaviours, decreased academic performance and difficulties in peer relations, when compared to boys of intact family units. Yet girls of divorced families (who had not remarried) functioned well at this time point. These sex differences may only exist in this particular study as it utilised single mother families. The authors suggested that children may adjust better to parental separation when the custodial parent is of the same sex; which was shown through girls adjusting well in this study, while boys continued to experience difficulties (Hetherington, 1989). Although the separation from one parent following divorce is generally not permanent for the child, the amount of contact is reduced. As outlined above, a basic tenet of family systems theory is that the removal of one member from the family requires considerable adaptation through out the system to compensate for this loss. While coalitions are altered to accommodate the diminished contact, communication would become increasingly important to maintain the relationship between child and parent. Findings in the study by Hetherington and colleagues (1985) suggests that there may be additional factors, such as the gender of the resident parent that influence

adaptation after separation and could result in long term difficulties or a longer period of adaptation.

Additionally, Jablonska and Lindberg (2007) found that families with shared custody fared better in regards to children's at risk behaviour and mental health, compared to single parent families. This particular study examined over 12,000 students to make comparisons between intact and single parent families; and although not all single parent families had experienced divorce, child based difficulties were found to be similar. Results suggested that having continued contact with both parents is beneficial, representing a family unit that has adapted to the separation while maintaining functioning coalitions. Single father families fared worse and are uncommon, as the father typically becomes the non-resident parent during the divorce process. If the father is involved in the children's life it can lead to beneficial outcomes, with a positive linear relationship between father involvement and children's school grades, attendance, and enjoyment (for a review see Lipscomb, 2011). The quality of involvement the father has appears to supersede the amount of involvement, indicating that children will still benefit if interactions are positive; even when the father is not frequently present (Jablonska & Lindberg, 2007; for a review see Lipscomb, 2011). However, if parental roles for the non-resident parent are not defined, a gradual decrease or complete loss of contact can occur (Pruett & Barker, 2009). This indicates that after a divorce, the family still exists as a unit and instead of having a complete separation an altered equilibrium is required, as well as the formation of a different system reconstructed from the original (Boss, 1999). The research by Hetherington et al. (1985) as well as Jablonska and Lindberg (2007); suggests that the resulting family unit after divorce can alter how children are affected in the long term, and that some children may fare better than others purely based upon the composition of the newly formed family unit. Therefore, suggesting that difficulties may persist if children are not within an optimum family composition or the system has not

altered their boundaries to either minimise or maintain the role of the non resident parent. Whereas Jablonska and Lindberg (2007) showed that maintaining contact was beneficial to the children, where communication was continued in the parent-child relationship through shared care arrangements and represents a family unit that has adapted to the separation.

A longitudinal study by Sun and Li (2002) assessed over 9,000 children twice before a divorce (3 and 1 years prior) and twice after the divorce (1 and 3 years subsequently). Data was taken from the 'National Education Longitudinal Study', which consisted of information for over 24,000 American students. Results showed that the disruption due to parental separation impacted both children's academic performance (assessed across math, science, reading and social studies) and self-esteem. However, lower academic performance and self-esteem for these children was noticed prior to the divorce, followed by further decline after the divorce. Further analyses indicated that child difficulties were attributable to family resources at each time point; suggesting that it was not the separation event but circumstances surrounding it that may have resulted in child difficulties. The decline of resources, both before and after the divorce, indicates that the disruption to the family system due to parental separation is likely moderated by available resources. However, it could be assumed that a breakdown in family cohesion occurred prior to divorce and may have coincided with the decrease in resources, adding another potential factor.

Although it is commonly understood that biological intact families tend to foster better wellbeing for children when compared to other family types, they are decreasing (Moore et al., 2002; Lipscomb, 2011). An increase of same sex families, single mother as well as single father headed families, cohabiting families, and stepfamilies has occurred in recent years making the "traditional family" just one of the many family types present in society (Halpern & Tan, 2009). Within New Zealand the rates of divorce are decreasing, but this is in line with total numbers of marriages; suggesting an increase in single parent families

or cohabiting family units. Therefore, this indicates that researchers need to consider various family types instead of the typical comparison between divorced and intact families.

In summary, divorce is a distressing event, which can be followed by a multitude of transitions (e.g., single parent family, shared custody, relocation, remarriage) and associated difficulties, but research has indicated that divorcing families can successfully adjust to the transition if they are adaptable during this reorganisation (Moore et al., 2002; Mathis & Yingling, 1990). This indicates that there is a change in family composition that becomes a permanent separation, whereas with temporary separations there may be an impact experienced based upon how that family is composed during the separation. The impact could be potentially based on where the children lives and how coalitions between members are maintained during a separation. Although divorce represents the latter, research into the domain concerning post divorce family composition could shed some light on how the impacts are expressed through children, and the adaptation of families to manage while separated.

Parental Incarceration. Another situation involving significant separation is incarceration, which generally involves the removal of one parent accompanied by reduced contact and responsibilities. Throughout the incarceration, the children and partner may have contact through mail, phone calls, or visitation. This is common but dependent upon the family relationship prior to incarceration (Mumola, 2000, as cited in Bocknek, Sanderson, & Britner, 2009). A study by Mumola (2000, as cited in Bocknek et al., 2009) found a trend that if the incarcerated parent is the father, then the child tended to live with their mother. Whereas if the mother is incarcerated, then the child typically lived with the maternal grandparents, which may be due to already living in a single parent family or may indicate further parental separation associated with the incarceration.

Children with incarcerated parents have been found to have an increased likelihood of developing post traumatic symptoms (e.g., nightmares, fearfulness, and withdrawal) (Bocknek et al., 2009; Lowenstein, 1986), relational issues, behavioural issues, and decreased academic achievement (Lowenstein, 1986; Bocknek et al., 2009) when compared to the general population. One particular longitudinal study by Murray and Farrington (2005) followed 411 males from 8 years to 40 years of age (at time of analyses). They were able to identify 23 children who experienced separation due to parental incarceration prior to 10 years old. This allowed comparisons within the sample between several core groups, including those who did not experience parental separation (227), separation due to death or hospitalisation (77), other forms of separation (61), and those whose parents had been incarcerated prior to birth but not again since release (17). Consequently, it was identified that separation due to parental imprisonment was predictive of antisocial and delinquent outcomes for children, when compared to the control groups and other forms of separation. These outcomes included antisocial personality, juvenile offending, violence, conviction, or imprisonment across their lifetime. Parental imprisonment was still predictive of later child outcomes, when prior parental convictions and childhood risk factors (IQ, family size, educational attainment, SES) were controlled. Therefore, showing that separation due to parental imprisonment was still independently associated with difficulties for children and a significant risk factor for later poor outcomes. In addition, Murray and Farrington (2005) suggested that further research should examine the possible moderating and mediating variables (length of sentence, child age, amount of contact) or risk factors generally associated with parental imprisonment (social stigma, level of social support, neighbourhood, type of crime) to further understand the adaptation processes.

The custodial parent's ability to cope, their age, education, and contact with the imprisoned parent prior to incarceration has been associated with difficulties experienced by

the child and has been suggested to have a greater influence than the separation itself (Nesmith & Ruhland, 2008; Lowenstein, 1986). If the child is kept in contact with the incarcerated parent along with being informed of where they are, the child can rationalise and understand the separation, which is additionally associated with reduced difficulties (Lowenstein, 1986). One study by Yocum and Nath (2011) examined 8 families and indicated that positive communication between the family and incarcerated parent can improve the likelihood of re-establishing the family unit upon completion of their sentence. The importance of family ties in reducing recidivism was also found within a study by Bahr, Armstrong, Gibbs, Harris and Fisher (2005), where 51 parolees were interviewed shortly after release, as well as one and three months following the initial interview. Through qualitative interviews with parolees and 19 parole officers, it was found that the number of strong relationships within the family network (when not associated with negative attitudes or criminal activity) and quality of parent-child relationship was linked with a reduced likelihood of reoffending within the study's sample. Comparisons were made within the sample between participants who were re-incarcerated and those who were not. The researchers noted that due to the small and possibly biased sample, findings were only suggestive of the processes, with further research being needed to clarify associations. The circumstances surrounding incarceration are typically unique to the situation such as; criminal activity, substance abuse, parole or home detention and could exacerbate initial difficulties experienced by children (Bocknek et al., 2009). These compounding stressors represent instability that may precede parental incarceration, and the imprisonment may be the first significant period of stability for the family unit as the presumed source of additional stress is incarcerated, however, the unit is still required to adapt to the separation (Bocknek et al., 2009). Where the family unit may be able to maintain a stable state with fewer presumed adaptations, as these factors are removed or minimised at least for the duration of the

sentence. When considered in regards to family system research, the initial separation necessitates adaptation of family structure and norms. The separation may not be permanent, but reunion would require an additional shift and result in another period of disruption for the family unit. However, it is possible that as with divorce, the separation between parents is more permanent (depending on the length of incarceration and parental relationship), which would necessitate the adjustment to a modified family unit.

To summarise, difficulties for children are associated with parental incarceration, with studies finding that it is independently predictive of child difficulties. In addition, the effects of separation due to incarceration can be reduced for both children and parents by maintaining communication and fostering strong family relationships upon reunion that can be nurtured during the incarceration. It appears to be important to maintain a sense of a complete family throughout the separation to minimise issues that may be externalised through children in the form of behavioural, emotional, or academic difficulties. Even with longitudinal research it is difficult to delineate confounding factors present before separation, impacts or outcomes of the separation, and possible mediators.

Migration. Within migration for employment, the main trend is stepwise; with one parent moving to gain work then sending for the spouse and children once it is economically viable, which could take several years (Hondagneu-Sotelo, 1992; Suarez-Orozco, Todorova, & Louie, 2002). Hondagneu-Sotelo, (1992) examined ten migrant families, who all experienced stepwise migration (mainly paternal separation), with the separation lasting on average 6 years. This trend was also found by Suarez-Orozco et al. (2002), who reported that 85% of youth in their study (total sample = 385) had experienced separation from at least one parent during the migration process, while nearly half of the sample were separated from both parents. Consequently, suggesting that this could be a normative process for migrating populations and may include the child(ren) being separated from both parents.

For children, separation from their parents during migration has been identified to lead to increased depressive symptoms, acting out, grade retention, school dropout rates, behavioural issues, and attachment difficulties (Suarez-Orozco et al., 2002; Gindling & Poggio, 2012; Zentgraf & Chinchilla, 2012). Children left behind during the migration process have also been found to have higher incidences of anxiety and depression once reunited, when compared to children who migrated with their parents (Suarez-Orozco et al., 2011). For example, Suarez-Orozco and colleagues (2011) examined 309 students within one year of migration and again at five years post migration. Participants on average experienced between one and two years of separation from either parent (separation from father was more common: 81.29% of total sample), while only 41 participants were not separated from either parent showing a complete family migration. Results indicated that children who had migrated as a family unit were less likely to report depressive or anxiety symptoms, when compared to children who had. Children who faced longer separations from their mothers reported the highest levels of depressive and anxiety symptoms within the sample. However, difficulties were largely resolved when followed up at five years after migration. A similar subsiding of difficulties was found in a study of divorce (Hetherington, 1989), suggesting a possible half-life for child based difficulties or a length of adaptation required in response to separation.

The impact of quality versus quantity of contact on difficulties experienced by children due to migration based separation is similar to that found in both divorce (Lipscomb, 2011) and incarceration (Yocum & Nath, 2011). Through continued contact with the absent parent, the negative effects of the separation can be reduced, as long as the contact is positive, although this benefit lessens as the time separated increases (Zentgraf & Chinchilla, 2012). Disruption of attachment relationships and the family equilibrium can come from two sources; initially when the parent(s) leave and again when the child leaves their caretakers to

be reunited with their parent(s) (Suarez-Orozco et al., 2002; Gindling & Poggio, 2012; Suarez-Orozco et al., 2011). Suarez-Orozco and colleagues (2002) interviewed 385 recently migrated students and found that children who were separated from parents were more likely to report depressive symptoms than those who were not separated. Additionally, parents and children reported feeling like strangers once reunited, having to readjust to the family dynamic, which can be more difficult than the separation itself. In addition, it was reported that reunion was tempered by mixed feelings due to the excitement of reunification, but loss of caretakers within the country of origin, as they were experiencing a second separation, which is linked with the same difficulties as stated above.

Difficulties experienced by children can be moderated by the age at the time of separation and reunification; as older children often face more difficulties than younger children, especially with academic achievement due to increased difficulty in learning a new language (Gindling & Poggio, 2012). Culture can be a source of resilience as many migrants come from cultures where large support networks of extended family are often utilised in raising children (Zentgrat & Chinchilla, 2012). Therefore, children may have already adapted to the host family if both of their parents migrate, with the experience not being as detrimental as initially proposed due to adaptations prior to separation (Zentgrat & Chinchilla, 2012). Parallels can be drawn from Bowlby's (1969) research on attachment, where ambiguity around a parent's return after experiencing separation increased the likelihood. This possibility is increased further if separation occurs during the first three years of life, and can lead to permanent detachment if the separation is prolonged or repeated. Prolonged separations are common within migration, which can last several years, and is a significant disruption to the attachment between children and parents. This shows a significant risk for the wellbeing of a family unit, as stability during the separation may

extend past the original length of time children have spent with their parent(s) (Suarez-Orozco et al., 2002); potentially leading to difficulties at reunion.

To summarise, when considering migration there are two potential separations that require familial adaptations to accommodate the separation and reunification. The first separation occurs when the parent(s) leaves to gain employment while the remaining family either awaits their return or the chance to migrate. Another separation can occur if both parents migrate to gain employment, where separation from the host family would occur and result in another period of destabilisation. This could result in the difficulties stated above due to the disruption and adaptations in dynamics required. The primary separation is similar to what can happen during divorce, with one parent leaving and having limited or sporadic contact with the child, yet quality contact may lessen stress experienced. Coalitions are sought to be maintained to minimise reunion difficulties and so the family can still exist as a system. Although the impacts on children are similar to divorce, migration is different in that the family is often reunited after the separation, even if several years pass and it may have involved the separation from both parents. Separations and reunions are disruptive for a family, which have been indicated to impact children in regards to academic, behavioural, and emotional wellbeing due to repeated alterations to the family dynamic, roles, and boundaries as theorised within family systems theory. Where these child based factors can be viewed as an externalisation of the stress within a family system and are typically discussed based upon that assumption.

PART III: An overview of Military Deployment

Theoretical Processes of Deployment effects. Military families endure regular separations and reunions, which are generally a required part of the occupation. The separation that occurs most commonly for military families is deployment, and is when a service member leaves their stationed military base for wartime combat, humanitarian

assistance or peace keeping operations (U.S. Army, 1992). These families frequently adapt to separations due to deployments, training exercises, and relocations; which occur often due to expected military operational outputs. Deployments and training exercises require the separation of one parent from the family unit, this type of parent-child separation is distinctive from those discussed above due to the large amount of risk. Risk is not present to the same degree in any of the other aforementioned examples of separations, as military personnel could face active combat that contains risk of injury or death. Deployment is generally understood by researchers and the military as occurring in three stages; pre deployment is when the family knows that deployment is to occur and adapts to the prospect of the parent leaving. Deployment is the period of time when the service member is away from the family, and post deployment is the period of time from when the service member returns until normality has resumed (Sheppard, Malatras, & Israel, 2010; Wilson et al., 2011). Each stage of the deployment cycle requires adaptation at the family level. During the deployment, children may be required to take on added responsibilities such as childcare, household chores, or support for the remaining parent, which can aid the family in managing, and can be an opportunity for children to mature (Card et al, 2011). When the military parent leaves, changes occur that are reversed upon return. Their role as spouse and parent is interrupted during their time away, requiring renegotiation of relationships once they return, while also taking into account any changes that may have occurred in their absence (Minuchin, 1974). It is theorised that the period of adaptation required at the beginning of a deployment and during the reunion represents a great deal of instability for the family unit as equilibrium and structure are altered (Sheppard et al., 2010).

In regards to the impact of deployment, Sheppard et al. (2010) proposed that families are most stable during the deployment, when the deployed parent is away and the family has adapted to the separation. At pre deployment this would primarily be due to knowing that the

parent is to leave; where roles and boundaries begin to be altered and can lead to some ambiguity until the deployment occurs. While post deployment is the stage from when the parent returns until roles, boundaries, and relationships are perceived by the family to have returned to a perceived normal state. The theoretical difficulty of post deployment is characterised by the alterations to roles and boundaries that occur, with the return to normality and a lack of difficulties signalling the end of post deployment, which varies in length between families. Deployment was hypothesised to be more stable due to the remaining parent becoming more structured to create a sense of predictability, while compensating for the missing parent. The period of stability is represented through the absence of change, with a maintained sense of continuity that occurs once the family has adapted to the parental separation and are able to function with comparatively less change for some time.

Sheppard and colleague's (2010) theory emphasised the stability of the family as a whole, but also stated that this stability is influenced by the remaining parent who negotiates role and boundary changes, routines, structure, and responsibilities. Furthermore, Sheppard et al. (2010) and Palmer (2008) both hypothesised that the effectiveness of the remaining parent to adapt to the change in family circumstances may moderate the effects of deployment upon children. In other words, it is the coping abilities and perception of the deployment by the remaining parent that determines the degree of difficulty experienced by the children and consequently the family (Palmer, 2008). If the home parent is adaptable and accesses extra support, then they can buffer and moderate the impacts of the deployment upon their child(ren) and ultimately the family (DeVoe & Ross, 2012). However, if the parent cannot cope with the extra responsibilities or stress, it can lead to diminished mental health, and can impact parent-child interactions, which could be expressed through child behavioural, emotional, or academic difficulties (DeVoe & Ross, 2012; Barker & Berry, 2009; Card et al.,

2011; Kelley, 1994). This suggests that any instability faced by the family impacts the remaining parent due to additional stress, which alters interactions with their children and results in various difficulties. Therefore, it becomes the remaining parent who determines the level of impact upon children and the adaptations that occur at a family level. Theoretically this relies on their own ability to cope with the deployment, emphasising the remaining parents' importance across a deployment cycle. This could indicate possible support avenues when considering difficulties that may appear across deployment, with the home parent being the key target with benefits filtering throughout the family system.

These theories developed within a military paradigm, appear to have been influenced by family systems theory due to the focus on stability, transactions within the system, and potential adaptations required due to boundary or role changes. In family systems theory, it is theorised that all individuals within a system have a relationship or coalition with one another. Therefore, when an individual is removed from the system due to deployment, the whole system is affected due to the web of coalitions being altered, changing how individuals within the system interact with one another (Minuchin, 1974; Esposito-Smythers et al., 2011). Consequently, symptoms may present in one individual, such as a child having difficulties sleeping, yet it is proposed that the root of the issue lies within the transactions of the family unit. Based upon the various facets of the family system that are negotiated and renegotiated at different stages, issues can result due to repeated fluctuations in family functioning. These include boundary and role changes, as responsibilities have to be delegated between remaining members to allow the family to function, and coalitions altered due to available interactions. Structurally the family has to redefine roles, which leads to boundary ambiguity as the deployed parent is not gone permanently, but the family has to adapt and function without them, while still maintaining their position within the system (Faber, Willerton, Clymer, MacDermid, & Weiss 2008).

It has been suggested that families who frequently experience separation with pending reunion may have a greater tolerance of ambiguity within the system or to novel adaptations (Boss, 1999). During deployment, a strong connection can be formed within the family system between the remaining parent and child(ren) due to reliance upon one another (greater coalition strength), which becomes particularly evident during reunion as the deployed parent can often feel as though they are an outsider. However, with the use of communication throughout the separation, the coalitions between the deployed parent and the family can be maintained, potentially minimising reintegration issues at post deployment (Esposito-Smythers et al., 2011).

In summary, it appears that theoretical assumptions regarding military deployment are considered within a family system based framework and that varied processes may be involved in experiencing difficulties. It is assumed that pre deployment and post deployment would be difficult for family units due to the adaptations they undergo to manage during the deployment. The family relationships and ability to adapt are emphasised by these researchers, as within family systems theory.

Overview of Impacts experienced due to Deployment. Research on military deployment has documented a higher potential for negative outcomes for children of military personnel, including decreased academic performance (Phelps et al., 2010), increased mental health problems (De Pedro et al., 2011; Huebner, Mancini, Wilcox, Grass, & Grass, 2007), increased behavioural difficulties (Wilson et al., 2011; Pfefferbaum et al., 2011; Kelley, 1994), decreased personal and emotional adjustment (Pfefferbaum et al., 2011), and confused attachment behaviour, or even complete detachment upon reunion with the deployed parent (Barker & Berry, 2009; Hill, 1945). These behavioural and emotional challenges are indicated when children of deployed personnel are compared to the general population and military children not experiencing parental separation.

In a study by Pfefferbaum and colleagues (2011) the entire deployment cycle was examined through interviewing 10 families at pre, during, and post deployment; measuring child behaviour and negative emotions, utilising both parent and child report. Results indicated that across the sample child behavioural difficulties were the highest during deployment but subsided at post deployment to levels similar to pre deployment. Interestingly, behavioural difficulties were higher in children who had previously experienced deployment, which was noted across all three time points. The researchers suggested that additional research would be necessary to understand whether it was an accumulation of effects, or if results represented long term problems associated with deployment. Although, there were very few families participating in the study, the results found evidence of behaviour changes across the deployment cycle and through the use of both child and parent reports, normed measures and a longitudinal design helped to offset the limitation of a small sample.

Research conducted by Phelps et al. (2010), compared the academic tests (measured twice) of 137 children with a military parent over a two year period. Results found a significant difference between children whose parents were deployed, compared to those who were not deployed on measures of academic ability. Yet no detriment was noticed within military children whose parents were not deployed at the time of testing. Their results suggest that deployment had an impact on children when separated, but that this effect may not be evident after or before a deployment, even when comparisons were made within a military population. Children whose parent was deployed at both time points fared worse than those whose parent did not deploy at all, or had only deployed at one time point, which has been suggested by other research (Lester et al., 2010; Barker & Berry, 2009). However, it is important to note that although academic performance fell significantly coinciding with deployment; performance still remained within the average range as determined by grade

level. They also noted limitations of the sample including only using children of enlisted rank personnel (non-commissioned), only two elementary schools were used, and high rates of poverty were prevalent within the population.

Another area of impact due to deployment is child mental health issues. A large retrospective study by Mansfield, Kaufman, Engel and Gaynes (2011) examined data of over 300,000 children with one military parent. The authors examined medical record data collected over a four year period, considering mental health diagnoses in relation to parental deployment status. Results indicated that deployment was considered a substantial risk for mental health diagnoses, especially depressive and behavioural disorders. Additionally, this risk was indicated to increase as the total months deployed increased. Children with parents deployed for more than 11 months that were given a mental health diagnosis ranged between 31-45% for girls and 36-50% for boys across various age bands. Whereas, children whose parents were deployed between one and 11 months, had a diagnosis rate that ranged between 23-31% for girls and 27-34% for boys. Additionally, across all participants the rate of diagnoses was only 16.7%, regardless of deployment status. Therefore, indicating a difference in diagnosed mental health concerns based upon length of deployment. Although this study is retrospective, it examined clinical diagnoses of children within a military population at a large scale and shows notable associations between deployment and child mental health concerns. In addition, the researchers noted that their sample included approximately two-thirds of all children of active duty personnel (United States) across the study period, which can be considered a notable strength. However, due to the large scale of the study it was not possible to examine important covariates that may have exacerbated or explained any mental health issues for children, such as parental mental health status or family functioning. This could impact child pathology at an individual level and was stated by the research team as a limitation.

There is little consensus around the length of time difficulties are present within children at post deployment. Some research indicates a return to normality within 3 or 4 weeks (Kelley, 1994; Pfefferbaum et al., 2011; Faber et al., 2008). However, other research specifies that longer periods of adaptation are required, which are dependent upon multiple factors such as deployment length, child age, and the remaining parent's ability to cope across the deployment (Barker & Berry, 2009; Card et al., 2011; Esposito-Smythers et al., 2011). Several studies have indicated that these difficulties and any caused by the separation subside almost immediately once the deployed parent has returned (Kelley, 1994; Pfefferbaum et al., 2011). Furthermore, Jensen et al. (1995) found that prevalence rates of psychopathology within 294 military families (both child and parent symptomology) were similar to epidemiological studies and population norms for the measures utilised. Therefore, suggesting a lack of difficulties but measures were only completed when a parent was not deployed indicating that difficulties are within population norms while the military parent was present. In addition, it has been suggested that some difficulties may not be reported in research due to existing at or subsiding to non-clinical levels; although they may still represent a difficulty for the family unit (Suarez-Orozco et al., 2002). Research is starting to reach consensus that difficulties are generally experienced by children and families facing separation at some level, but the length, type, and extent of these difficulties is still queried and differs between studies.

Research into the impacts of deployment upon the partner or remaining parent has shown difficulties in their mental health, with an increase in susceptibility being linked with deployment (Kelley, 1994; Card et al., 2011; Huebner et al., 2007; Taft, Schumm, Panuzio, & Proctor, 2008). This has been associated with an alteration in their response to their children and ability to cope with the deployment, with their attitude toward the deployment and ability to cope with the separation being suggested to impact the adjustment of children (Kelley,

1994; Palmer, 2008). As discussed above, this association between parental coping and child difficulties is based upon alterations in parent-child interactions as the home parent adapts to managing the family system independently (Palmer, 2008; Sheppard et al., 2010). However, research examining the home parent and family unit is minimal as the child is usually the target of investigation. Research conducted by Finkel, Kelley, and Ashby (2003) examined 86 mother-child dyads and found that maternal depressive symptomology was able to significantly predict depressive symptoms within children. Yet the study considered family relocation instead of deployment, which would be another stressor within the population and a different type of separation, focusing upon the removal from community support compared to parental absence. The research tends to focus upon the mental health status of the remaining parent and the possible effects it has upon child based outcomes.

In summary, child based outcomes associated with the separation of deployment appear to mirror those previously mentioned for different types of separation. This indicates that the separation itself could instigate difficulties instead of the circumstances surrounding the separation. It becomes difficult to understand the process of parental separation and the impacts at a family level as the methodological and theoretical diversity across studies makes it difficult to identify the key factors that shape family adaptation. As discussed, academic functioning, emotional and behavioural issues, and detachment from parents is possible within children, even if the proportion of individuals impacted is small these difficulties are considered serious. Further research is needed to clarify and minimise any detrimental effects that may or may not occur. From the perspective of family systems theory these impacts experienced by children can be viewed as externalisations of family difficulties, where it may be caused by a breakdown in coalitions, an inability to adapt, or a lack of communication. However, the majority of studies across divorce, incarceration, migration, and military research do not examine these family factors but instead relate child difficulties to the

separation and reunion events. It often becomes a discussion point within studies that child based difficulties may be suggestive of deeper issues within the family system or their inability to adapt, but it is not usually explicitly examined.

Part IV: Current Study

When considering the adaptations families make in response to separation, it is important to examine how members change in their interactions, relationships, communication within the system, and ways in which they cope with additional stress. As has been discussed above, these are important factors within family systems theory and there are various difficulties a family can face from the separation of deployment, which are typically expressed via children. Family systems theory emphasises interactions or communication between individuals within the system and a tolerance to change or the adaptability of the family system when considering reactions to stress. Communication is considered the core way in which adaptations are negotiated within the family system, where a lack of adaptation in response to stress can lead to further difficulties for family members. These difficulties can often become externalised as child based difficulties, likely due to their inability to process or internalise issues within the family system.

Although there is considerable research on the impacts of separation, typical results suggest an increased risk of difficulties for children. Theories consequently propose different understandings of where stressors exist and what causes difficulties. For example, family systems theory indicates that a problem can become externalised through one member, but it is ultimately the processes within the system that is viewed as the source of the issue (Minuchin, 1974). It is uncommon for the processes involved in separation to be studied, especially in relation to when issues may arise, the impact on family functioning, or how adaptation occurs. These issues can be linked to breakdowns in coalitions and communication, or if a family is not able to adapt to accommodate stressors or change. The

current study intends to focus on examining the benefits or detriments of the separation, the processes that occur at a family level, and how families navigate this oddity. The family will be examined as a whole, focusing on relationships within the system that may be impacted and potentially lead to externalised difficulties, as has been suggested to occur by several studies and family systems theory. At the conclusion of this research it is hoped that more will be understood from the perspective of the family unit in regards to adaptation to both separation and reunion.

As such the primary aims of this study are as follows: (i) to describe family re-adjustment after military deployment; (ii) to examine deployment factors associated with current functioning; (iii) to identify resilience factors in families that effectively adapt to the deployment cycle, and avenues of support that may promote increased resilience for all families; and (iv) to analyse participants' perceptions of New Zealand Defence Force (NZDF) support and facilitation of family transitions over the course of the deployment cycle.

Chapter TWO

Method

Design

This study utilised a cross sectional, mixed method design. A mixed method design emphasises the equal use of qualitative and quantitative data collection methods, each section is discussed below. The primary purpose of the study was the exploratory analysis of the adaptations military families experience across deployment, as few studies exist concerning the experiences of the family as a unit. Through a mixed method design, it was possible to examine questions about the associations between variables across the sample as well as more deeply examine contextual issues that were related to the unique experiences of individual family units. In addition, a mixed method design minimises the limitations of both methods and can be used to complement findings of each method (Castro, Kellison, Boyd, & Kopak, 2010).

Quantitative measures were utilised to assess the experience of the family, allowing for comparisons within the study sample and against pre-established norms. The survey questionnaire measured specific variables that previous studies and family systems theory had identified as important to families experiencing change. As well as addressing the first two study aims concerning family re-adjustment after deployment, and deployment factors associated to current functioning. The qualitative components of the study examined the specific experience of each family and their subjective perspective of their adaptation across the deployment cycle. In addition, the qualitative component addressed the third study aim concerning familial resilience and potential support avenues that could be provided in the future. The fourth aim of the study is to analyse participants' perceptions of the support that was provided by the NZDF, and how this may have facilitated their adaptation across the deployment cycle. In exploratory and descriptive research, a mixed method approach

provides a chance to replicate and extend previous quantitative findings without overlooking distinctive experiences, or participants' unique perspectives and reflections on those experiences. Additionally, through requiring both parents to respond allowed the testing of cross partner effects or agreement.

Ethics

This study, including its design, methodology, recruitment strategies, and measures were reviewed and approved by the University of Canterbury Human Ethics Committee, New Zealand (Appendix A) and the New Zealand Defence Force. The New Zealand Defence Force also approved the participation of currently enlisted military personnel and facilitated participant recruitment (Appendix B). Written informed consent was gained from each participant (both partners) prior to every interview (Appendix D). The consent process emphasized for participants that participation was voluntary, all information was kept confidential, and that data could be withdrawn if requested and done so before data analysis commenced.

Participants

The NZDF consists of army, navy and airforce contingents; with the current study focusing upon army personnel who had deployed while in a relationship with at least one child at the time of deployment. The New Zealand army consists of approximately 4,500 regular force personnel (career soldiers). Burnham military base was the initial target of investigation due to convenience of location. It is one of New Zealand's largest military bases, due to the 2/1st Battalion Royal New Zealand Infantry Regiment being stationed here. Linton military base was later targeted for participants, due to limited response from Burnham alone and was similarly chosen based upon ease of access. It contains the 1st Battalion Royal New Zealand Infantry Regiment, along with a number of other regiments. Infantry personnel are the most readily deployed personnel as they are the main combat unit

of the New Zealand army. Based upon information provided by the NZDF; there were approximately 80 families stationed at the Burnham military base and 120 families stationed at the Linton military base, that potentially met study conditions (had deployed, and were in a relationship with at least one child at the time of deployment). Participants were contacted through pamphlet drops, local newsletter articles, community groups, social media, command chains within each military camp, direct mailed letters, and individual NZDF email advertisements. A convenience sampling method was utilised that aimed to recruit any eligible participants in a four month time span. This method of recruitment was preferred to other strategies where military personnel may have felt pressured or under obligation because of solicitation coming through the command chain. Information provided to participants addressed the study details, the activities involved in participating, and the confidentiality of the information provided (Appendix C). Interested participants made contact with the lead investigator via phone call or email to arrange an interview time and location that best suited participants' schedules. This resulted in 28 participating families (56 partners), defined as at least one military personnel who had recently deployed (*deployed parent*), and their partner who remained at home with their child(ren) (*home parent*). Children were not interviewed. There was a low response rate (14%) within the current study from the total eligible population of both military bases. However, not all participants were indicated by NZDF and not all personnel indicated by NZDF met study criteria. Based upon privacy requirements not all identified participants could be contacted directly, which reduced the number of potential participants. Due to these factors and the time limitations of a Master's Thesis, a convenience sample was targeted in regards to the above outlined criteria, with a time frame of 4 months for interviewing being maintained instead of aiming for a specific number of participants.

Table 1 displays all the assessed demographic characteristics of the sample. Nineteen couples were interviewed from the Burnham military base and another 9 couples were interviewed from Linton. Families between military bases differed in that a larger portion of families within Linton identified as Māori (6 out of 9, compared to 6 out of 19 from Burnham), with the only other significant difference being geographical positioning. As shown in Table 1, the majority of deployed parents were male (96.4%) and home parents were female (96.4%). Over a third (32.1%) of the home parents identified themselves as stay at home parents, while another third indicated various forms of civilian employment (e.g., law, retail, merchandising, and marketing). A small minority of home parents were teachers or working in childcare, a few were also a member of the NZDF, or were working as a civilian employed by the military. The majority of families were biologically related (75%). Most families had 2 children (46.4%) but this ranged between 1 and 4 children per family; with 50-75% of children within families being male across birth position. Child age at deployment varied between 0 and 19 years; while the average age of children at deployment ranged between 2 and 7; majority of all children were either 10 or under (65.67%). In addition several families were pregnant at the time of deployment or became pregnant during mid-deployment leave, and some had subsequently conceived and had children since reunion. Half identified their ethnicity as New Zealand European, just over a quarter identified as mixed ethnicity with Māori and European heritage, almost 15% identified as only Māori, and a small minority (7%) identified themselves as one of several other ethnicities.

In terms of military rank and experience, twenty one (75%) of the deployed parents identified themselves as a non-commissioned rank (Warrant Officer Class 1/2, Staff/Sergeant, Lance/ Corporal, Lance/ Bombardier and Private); this group has been found in previous research to have had an increased likelihood of developing mental health concerns if faced active combat during deployment compared to those of commissioned rank (Lieutenant

General, Major General, Brigadier, Colonel, Lieutenant Colonel, Major, Captain, Lieutenant, Second Lieutenant) (Fielder et al., 2006). The majority of deployments were classified as high risk (60.7%) and a high proportion of deployments had a critical incident occur (71.4%). Deployments are categorised as low, medium, or high risk and are based upon the threat of the specific deployment; whereas a critical incident is the technical term for engagement with combatants, where injury or death are possible. The average amount of time employed by the military was substantial at 14 years (ranging between 2 and 27 years). Military parents had experienced an average of 3 deployments and the average length of deployment was 6 months. Taken together this demographic information suggests that this small sample was quite diverse in terms of family characteristics, but also had significant experience with military life and deployments, with few new recruits participating in the study.

Table 1

Demographic background of participating military families.

Variable	Mean (SD) or % (Frequency)	Min-Max
Military Parent Gender (Male)	96.4% (27)	
Military Parent Age at Deployment	34.36 (6.13)	22-47
Home Parent Gender (Female)	96.4% (27)	
Home Parent Age at Deployment	33.83 (5.43)	20-45
Home Parent's Current Job		
Military	10.7% (3)	
Civilian employed by NZDF	7.1% (2)	
Teacher/ Childcare	14.3% (4)	
House maker	32.1% (9)	
Other	35.7% (10)	
Number of Child(ren)		1-4
1 Child	10.7% (3)	
2 Children	46.4% (13)	
3 Children	28.6% (8)	
4 Children	14.3% (4)	

Table 1 (continued)*Demographic background of participating military families.*

Variable	Mean (SD) or % (Frequency)	Min-Max
Child(ren) Gender (Male)		
1 st Child	75% (21)	
2 nd Child	68% (17)	
3 rd Child	50% (6)	
4 th Child	75% (3)	
Child(ren) Age at Deployment		
1 st Child	7.75 (4.88)	1-19
2 nd Child	5.52 (4.06)	Not Born/0-14
3 rd Child	4.00 (2.72)	Not Born/1-10
4 th Child	2.00 (0.00)	Not Born/2
Family Structure		
Biological	75% (21)	
Step Family	25% (7)	
Ethnicity		
NZ European	50% (14)	
NZ Euro & Māori	28.6% (8)	
NZ Māori	14.3% (4)	
Other	7.1% (2)	
Time in Military (years)	14.64 (7.08)	2-27
Number of Deployments	3.07 (1.39)	1-6
Length of Latest Deployment (months)	6.09 (1.42)	3-9
Rank During Latest Deployment		
Commissioned Rank	25% (7)	
Non Commissioned Rank	75% (21)	
Risk Level of Latest Deployment		
Low	10.7% (3)	
Medium	28.6% (8)	
High	60.7% (17)	
Any Occurrence of Critical Incidents	71.4% (20)	
Military Base		
Burnham	67.9% (19)	
Linton	32.1% (9)	

Procedure

All data were collected through face to face interviews, at a time and location chosen by participants; except Linton based participants who chose from a list of available time slots. A thorough explanation of the details of the study was provided, it was stated that data would remain confidential and would only be identified by a unique research code. For the purposes of the interview, the pre deployment period was defined for participants as when deployment orders were received until the actual departure. The deployment period referred to when the service member is away from the family and on active deployment. While the post deployment period included the return and gradual reintegration of the deployed parent into family life, until they perceived that normality had resumed (Wilson et al., 2011).

Both partners read the study information sheet (Appendix C) and signed the consent form (Appendix D) prior to starting the interview. Demographic information was discussed between both parents, while each quantitative section was completed independently of one another to provide two different scores for each family. For child behaviour and coping strategies the home parent responded three times to align with each stage of the deployment cycle (pre, during, post). Whereas deployed parents only responded twice on these measures, as they were not able to respond reliably on family dynamics during the deployment. Free response interview questions followed the scales that assessed family coping, child behaviour, and parenting behaviour, which were discussed with both partners and answered conjointly. The lead investigator then conducted a short semi structured interview simultaneously with both partners discussing in more detail any difficulties experienced, adaptations made, perceptions of positive changes, and if they had experienced deployment previously and how this altered their most recent experience. The interview section was audio recorded and later transcribed. During the interview, if one partner was leading the discussion, their response was checked with the other partner to permit elaboration or

consensus. A written debrief (Appendix E) was provided at the end of the interview, that restated the confidentiality of the participants' information. It additionally provided referral information to support services if participants were interested in following-up with any issues raised during the course of the interview.

Measures

The current study utilised several well established quantitative measures and a set of open ended questions, which together were administered as a semi structured interview. This interview schedule was developed by the lead investigator with consultation from the research supervisors and NZDF psychologists who helped to oversee the project. The following is a description of each of the measures in this study (for all quantitative measures as they were administered see Appendix F). The dependent variables measured in the quantitative study included parenting behaviour, relationship satisfaction, mental health, and family communication and satisfaction. While the key independent variables were child behaviour, deployment risk factors, and family coping strategies utilised throughout the deployment cycle.

Due to the small sample size and subsequent low power, a number of composite variables were created to reduce the number of variables employed in the multivariate analyses. The composite scales were created by combining subscales within measures that showed high reliability or by combining across related measures when there were substantial correlations. Some measures or subscales were not utilised due to poor reliability or low correlations across measures.

Independent Variables.

Strength and Difficulties Questionnaire (SDQ) (Goodman, 1997). Child behaviour changes were an independent variable of the study and were measured by the SDQ. This measured children's emotional and behavioural problems, peer problems, and pro-social

behaviour in a brief parent-report questionnaire containing 25 items. The SDQ is free and easily accessible; it has been used extensively in previous research. Zubrick & Silburn (2006) reported that the SDQ had an alpha of 0.73, test re-test reliability of 0.62 and good internal reliability (.60 to .81). Additionally, Goodman and Scott (1999) found the measure to be highly correlated ($r = .59$ to $.87$, $p < 0.001$) to the child behaviour checklist (CBCL; Achenbach, 1991), which is a well-established measure of externalising and internalising problems within children. Based upon the reliability, ease of use, established norms and brevity, the SDQ was utilised within the current study to examine child behaviour as opposed to the CBCL, which is a considerably longer measure. Participants' responses are based on a 3-point Likert scale with responses being "not true" (0), "somewhat true" (1) or "certainly true" (2). A total score is assigned out of 40 points (excluding pro social behaviour). Examples of child behaviour queried were; "considerate of other people's feelings", "kind to younger children", and "thinks things out before acting". In comparison to normative data (American data, utilised and supported worldwide), total scores of 14-16 indicate that a child may be experiencing borderline difficulties, and scores of 17 and above indicate more profound difficulties. In the current study, parents used the SDQ items as a framework to consider their child(ren)'s behaviour across the deployment, the home parent considered behaviour across the 3 stages of the deployment cycle (pre, during, post), while the deployed parent reported behaviour at pre and post deployment. If families had more than one child then parents were required to consider their children as a unit when answering the SDQ. Qualitative open ended interview questions were used to specify whether children's behaviour in families with multiple children differed from one another. Internal reliability of the SDQ within the current study was poor to acceptable for the deployed parent (alpha = .52 pre deployment and .71 post deployment). On the other hand, internal reliability for the home

parent was much better ($\alpha = .83$ pre deployment, $.80$ during deployment, and 0.81 post deployment).

Deployment Risk Factors. This score was created and utilised from totalling several dichotomous variables. A “1” was recorded for length of latest deployment if it was 6 months or longer; if personnel were of Non Commissioned rank; if the deployment was classified as high risk; or if critical incidents occurred. The four dichotomous scores were summed together with a range between 0 and 4; a higher score indicated that the deployment had greater risk.

Family Crisis Orientated Personal Evaluation Scales (F-COPES) (McCubbin, Larsen, & Olson, 1987). A core independent variable targeted was coping strategies utilised by families across the deployment cycle. This was measured by the F-COPES, which is a 30 item, self-report questionnaire that assesses the coping strategies used by families when faced with stressful situations. The five subscales from the original measure include; acquiring social support, reframing, seeking spiritual support, mobilizing family to acquire and seek help, and passive appraisal. Higher total scores indicate more positive coping, and the highest score on a single subscale represented the most readily utilised coping strategy. Previous studies revealed the F-COPES to have good internal consistency between the subscales ($.61$ to $.81$; Altieri & von Kluge, 2009). Norms have been produced for the measure allowing for comparisons with the general population; however these are based upon United States data. The FCOPES was utilised within the current study due to the reliability, established norms and the theoretical underpinning of family systems theory, which resulted in the measure focusing upon the family unit more than other measures. The measure utilises a 5 point Likert scale with responses ranging from “strongly disagree” (1) to “strongly agree” (5). Sample responses include, “sharing concerns with close friends” (social support subscale), “seeking information and advice from the family doctor” (mobilising subscale), or “attending church

services” (spiritual support subscale). The F-COPES in this particular study is answered regarding coping behaviours utilised across the deployment cycle of pre, during, and post deployment. This required three separate responses for the Home Parent and two for the Deployed Parent, as they were unable to comment reliably on family dynamics during deployment.

Three of the five subscales were used in the final analyses (acquiring social support, seeking spiritual support, and mobilizing family to seek/acquire assistance). Preliminary analyses that examined internal consistency, reliability and inter-subscale correlations showed that the passive appraisal and reframing subscales had poor internal consistency and low correlations with the other subscales. For ‘passive appraisal’, internal reliability for the deployed parent was -.28 (pre deployment) and -.14 (post deployment); whereas home parent internal reliability was .38 (pre deployment), -.13 (during deployment) and .24 (post deployment); indicating substantially low internal reliability. Inter-subscale correlations of ‘passive appraisal’ with the 3 key subscales (acquiring social support, seeking spiritual support, and mobilizing family to seek/acquire assistance) were low and out of six correlations for the deployed parent none were over -.26 and none were significant. Whereas home parents sub scale correlations ranges were good (pre deployment $r = -.60$ to $-.49$; during deployment $r = -.50$ to $-.41$; post deployment $-.50$ to $-.37$; all p values ranged between .11 and $<.001$). For the ‘reframing’ subscale, estimates of internal reliability for the deployed parent was .72 (pre deployment) and .68 (post deployment), whereas home parent internal reliability was .58 (pre deployment), .55 (during deployment) and .62 (post deployment), which were rather low. While the inter-subscale correlations with the 3 key subscales (acquiring social support, seeking spiritual support, and mobilizing family to seek/acquire assistance) for deployed parents were ranged from .18 to .51 (pre deployment) and .22 to .59 (all p values were between .37 and <0.001). However, for the home parent out of 9

correlations all were below $-.29$ and non-significant. This indicated that ‘passive appraisal’ was not significant for the deployed parent but was for the home parent; whereas ‘reframing’ was non-significant for the home parent yet was significant for the deployed parent; which necessitated their removal.

The three subscales used in the final analyses had acceptable internal reliability estimate ranges (deployed parent = $.54$ to $.94$ (pre deployment), $.58$ to $.89$ (post deployment); home parent = $.65$ to $.83$ (pre deployment), $.61$ to $.77$ (during deployment), $.70$ to $.87$ (post deployment)) and correlated well with one another across time points (r s ranged between $.49$ to $.68$ pre deployment, and $.42$ to $.59$ post deployment for the deployed parent; while the home parent correlations ranged between $.62$ to $.66$ pre deployment, $.49$ to $.67$ during deployment, $.71$ to $.73$ post deployment; all p s < 0.05). Based upon the moderately strong correlations the 3 remaining subscales scores were combined for a total score, generating a total coping strategy score, with higher scores indicating more use of coping strategies at each of the 3 time points. This final composite measure for the F-COPES had very good internal reliability across both parents ranging from $.84$ (pre deployment), to $.83$ (post deployment) for the deployed parent and $.87$ (pre deployment), $.83$ (during deployment), and $.83$ (post deployment) for the home parent.

Dependent Variables.

Parenting Behaviour (Raudino, Woodward, Fergusson, & Horwood, 2012). The parenting behaviour measure examined parenting behaviour and attitudes across four subscales: parental warmth, parental sensitivity, parental over reactivity, and parental lax/inconsistent discipline. This was a core dependent variable of current family functioning. The measure had 36 items and responses were made on a 5-point Likert scale (“strongly agree” (1) to “strongly disagree” (5)). Sample items included statements such as, “I give comfort and understanding when my child is upset” (warmth subscale), “I realise when my

child is upset or worried about something” (sensitivity subscale) and “I explode in anger towards my child” (over reactivity subscale). Test reliability across the subscales from past research ranged from .70 to .84, with good model fit indices from confirmatory factor analysis (Raudino, et al., 2012). This measure was utilised based upon theoretical fit and extensive development process through the incorporation of components from the Parenting Practices Questionnaire (Robinson, Mandleco, Olsen, & Hart, 1995 as cited in Raudino, et al., 2012), the Caregiving Questionnaire (Kunce & Shaver, 1994 as cited in Raudino, et al., 2012), the Child Rearing Practices Report (Dekovic, Janssens, & Gerris, 1991 as cited in Raudino, et al., 2012), and the Parenting Scale (Arnold, O’Leary, Wolf, & Acker, 1993 as cited in Raudino, et al., 2012). These are all pre-established measures and allowed the incorporation of a larger portion of identified parental behaviours, which increased representativeness (Raudino et al., 2012).

In the current study, the 4 parenting subscales were reduced into 2 main categories of positive parenting behaviour (parental warmth and parental sensitivity) and negative parenting behaviour (parental over reactivity and parental lax/ inconsistent discipline). This decision was based upon significant correlations within each parent for the positive parenting behaviours ($r = .75$ deployed parent and $.64$ home parent, $ps < 0.01$) and negative parenting behaviours ($r = .52$ deployed parent and $.38$ home parent, $ps < .05$). Therefore the decision to merge categories was made to reduce variables for analyses. Internal reliability in the current study for positive parenting behaviour ($\alpha = .86$ deployed parent and $.80$ home parent) and negative parenting behaviour ($\alpha = .82$ deployed parent and $.80$ home parent) was high across both parents, indicating good internal consistency for the measures.

The Perceived Relationship Quality Components scale (PRQC) (Fletcher, Simpson, & Thomas, 2000). Couple relationship satisfaction was a dependent variable and utilised as an indicator of current functioning. This measure examined couples’ relationship quality

based on several subcomponents: relationship satisfaction, commitment, intimacy, trust, passion, and love. Participants' responses are recorded on a 5-point Likert scale from "not at all" (1) to "extremely" (5) as to how the 18 statements describe the couple's relationship currently. Sample items include "How much do you love your partner?" and "How devoted are you to your relationship?". The measure has been reported to have high face validity, high test re-test reliability, as well as very good internal reliability of subcategories (.74 to .95) (Fletcher et al., 2000). Total scores and sub category scores can both be calculated. The current study yielded internal reliability estimates for the deployed parent of .93 and .94 for the home parent, indicating very high reliability of the measure. The Perceived Relationship Quality Components Scale was utilised based upon brevity, substantial reliability and the requirement to measure the specific dimension of relationship satisfaction.

Family Communication Scale (Olson, Gorall, & Tiesel, 2004; Olson, 2011).

Communication within the family was a dependent variable and assessed by the Family Communication Scale (as it appears within Family Adaptability and Cohesion Evaluation Scale IV (FACES IV); Olson, 2011), which has been utilised in a number of studies examining different family dynamics (Olson & Gorall, 2003). Participants respond to 10 statements regarding communication within the family by selecting an appropriate option on a 5-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Statements concern communication skill and ability of members within the family. The measure is included within FACES IV. Higher scores point to positive communication and is indicative of a more balanced and healthy family, while negative communication hinders family functioning. A total score of 38 or more was indicative of high family communication, based upon normative United States data (Olson, 2011). Akhlaq et al. (2013) found the family communication scale to be internally consistent and have significant reliability (.60). Internal

consistency reliability within the current study was very good ($\alpha = .83$ for the deployed parent and $.87$ for the home parent).

Family Satisfaction Scale (Olson, 1995; Olson, 2011). Satisfaction with current family functioning was a dependent variable and was assessed through the Family Satisfaction Scale. The measure has 10 items, which were responded to on a 5-point Likert scale ranging from “very dissatisfied” (1) to “extremely satisfied” (5). Statements centred on satisfaction with several factors of family functioning; including flexibility, coping with stress, conflict resolution and problem discussion. A total score of 40 or above was indicative of high levels of family satisfaction. The version utilised in the current study appears in FACES IV (Olson, 2011); it has been used in a number of studies as an individual measure and within several iterations of the FACES measure. Previous research reported that the family satisfaction scale had excellent internal reliability ($\alpha = .93$; Olson, 2011) and high test re-test reliability ($r = .85$; Olson, 1995). Internal reliability in the current study was strong ($\alpha = .92$ for the deployed parent and $.90$ for the home parent).

A strong link has been found between family communication and satisfaction within the family, with good communication leading to increased satisfaction (Noller & Fitzpatrick, 1990; Olson & Gorra, 2003). Both scales are utilised within the current iteration of FACES (IV; Olson, 2011) in family systems research; with higher scores of communication and satisfaction being related to more balanced, functioning families (Olson, 2011). Preliminary analyses revealed that the communication and satisfaction scales were highly correlated ($r_s = .88$ for the deployed parent and $.75$ for the home parent, $p_s < .001$). Thus, the communication scale and satisfaction scale were combined for a total family communication and satisfaction score. Internal reliability for the composite scale were excellent for both the deployed parent ($\alpha = .94$) and home parent ($\alpha = .93$). Both measures were utilised based upon their theoretical underpinning of family systems theory, which allowed direct measurement of

components considered important by the theory and acted as a proxy variable for family wellbeing as noted.

Brief Mental Health Screening Tools. One of the primary relationships of interest was the impact of deployment upon mental health. To assess this, three brief screening instruments were used to assess current mental health symptoms. Screening measures were utilised due to brevity, reliability, and as these were substantially correlated to more expansive measures of mental health, which allowed for sufficient assessment of mental health symptoms.

Depressive symptoms were assessed with the Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2001), which contains 9 items, answered on a 4 point Likert scale of how frequently participants had experienced specific symptoms in the last two weeks. The items focused on depressive symptoms, such as little interest or pleasure in doing things, feeling tired, having little energy, poor appetite or overeating. A total score of 5 indicated a positive screen for mild depression. Previous research has indicated that this measure has good internal reliability (.86) and internal validity (Kroenke et al., 2001). Within the current study, internal reliability was .87 for the deployed parent and .79 for the home parent.

The Generalised Anxiety Disorder scale (Spitzer, Kroenke, Williams, & Lowe, 2006) is a 7-item measure that assesses generalised anxiety symptoms (GAD-7). Participants responded to individual items based on a 4 point Likert as to how often they had experienced symptoms of anxiety within the last two weeks. These statements concerned symptoms such as feeling nervous, anxious or on edge; being so restless that it's hard to sit still; or becoming easily annoyed or irritable. A positive screen for mild anxiety was indicated by a total score of 5 or above. In previous research the GAD-7 showed excellent internal reliability (.92), test retest reliability (.83), and good convergent validity (Spitzer et al., 2006). Internal reliability estimates for the current study were .86 for the deployed parent and .83 for the home parent.

The Primary Care Post Traumatic Stress Disorder (PTSD) screen (Prins et al, 2004) is a 4 item yes/no questionnaire to gauge PTSD symptomology. An answer of “yes” on 3 or more items indicates a positive PTSD screen. Questions concern participants’ experiences of PTSD symptomology within the last month. These focused on the core symptoms of nightmares, recurring/ intrusive memories, physiological reactivity and dissociation/ emotional detachment (American Psychiatric Association, 2013). Prins and colleagues (2004) found the test-retest reliability to be .83, and that it was highly correlated to the Clinician Administered PTSD scale. Internal reliability estimates within the current study were .77 for the deployed parent and .44 for the home parent.

Preliminary analyses with the mental health measures revealed that there were good correlations across the three measures for both the deployed parent and the home parent. Correlations for the deployed parents ranged from .66 to .89 ($ps < .001$), while the correlations for the home parents ranged from .37 to .80 ($ps < .05$). In light of these associations, a composite mental health score was created. A dichotomous score was calculated for each measure with a “1” recorded for a positive screen and “0” recorded for a negative screen. The three dichotomous scores were then summed together, creating a composite measure of positive mental health screens ranging from 0 to 3. Internal reliability estimates within the current study of the total mental health scores were strong for both the deployed ($\alpha = .94$) and home parent ($\alpha = .86$).

Interview Questions. Three separate sections of interview questions were created to clarify any issues raised by the questionnaire and to allow participants to elaborate on their personal and family deployment experiences (for full list of qualitative questions used see Appendix G).

A number of free response interview questions followed specific scales in the questionnaire (SDQ and F-COPES), to supplement the quantitative measures and identify

idiosyncratic issues that participants might wish to raise and allow expansion of their responses. Questions were developed through assessment of measures to determine what factors required further clarification around participants' specific experience across the deployment cycle. For child behaviour this included determining if all children behaved similarly regarding changes in behaviour, how behaviour changed (positive or negative), whether this was beneficial or detrimental to the family unit, and how deployment was addressed to children based on their level of understanding. Free response questions regarding coping strategies centred on changes in strategies utilised to adapt to stress, potential strategies not identified that were helpful during deployment, communication during deployment, and how deployed parents aided family coping while separated. These questions were targeted towards allowing comparison of behaviour to normative expectations, indicating changes during the various phases of deployment, and how this influenced family adjustment across the deployment cycle, opposed to single time points.

Questions concerning Māori cultural factors were developed through consultation with the University of Canterbury's Māori Research Advisory Group, which suggested several key areas to focus upon. Questions queried cultural factors, and activities or considerations that may have altered participants' deployment experience. These specifically targeted the impact of culture, and iwi, Whanau or extended family upon daily life as well as adjustment during deployment. An additional component questioned how NZDF took participants' culture into account when providing support to the family across the deployment cycle.

The last section of questions were utilised in the semi structured interview and focused on the experience across the deployment cycle. Initial questions centred on specific difficulties experienced, adaptations that occurred, positive changes, and whether they had deployed previously and if so, how previous deployment experiences influenced their

adaptation during the most recent deployment cycle. These were the core question lines, however participants were encouraged to discuss conjointly and recount any details of their deployment that may have been unique or aided/ impeded their family adjustment across the cycle. The purpose of the interview was to gain qualitative information of participants' experience that would complement the quantitative measures and provide a more detailed account of the period. In addition, these were used to answer the current study's primary aim regarding identification of resilience factors of families who adjusted effectively and avenues of support for those who found the deployment difficult.

Coding and thematic analysis was conducted on these three sections to determine common topics discussed between participants. Details of the qualitative data analysis are described below in Chapter FOUR.

Chapter THREE

Quantitative Results

Data Analysis

The data was initially organised within Microsoft Excel (2010) and transferred into SPSS version 20 (Statistical Product and Service Solutions), which was used for the descriptive and inferential analyses. Four separate analyses were conducted to address the first two primary aims of the study (readjustment after deployment, factors associated to current functioning), each analysis is described below.

First, a variety of preliminary analyses were conducted to examine the psychometric properties of the measures and from this, a number of variables were reduced to a core set that provided the best information for addressing the aims of the study. The descriptive statistics of these variables are provided in Table 2, including the means, standard deviations, minimum, and maximum for continuous outcome variables and the frequencies and percentages for dichotomous variables. This includes the composite variables of family communication and satisfaction, and total mental health score, which were utilised in subsequent analyses.

Second, repeated measures analyses of variance (ANOVA) were calculated to assess changes across the deployment cycle (pre, during, post) in relation to parents' judgments of child behaviour, and coping strategies utilised. These analyses were conducted separately for the Deployed Parent and Home Parent. For the deployed parent only pre and post deployment data was used, because while deployed they were unable to comment reliably on family dynamics.

Third, zero-order correlations were employed to examine the bivariate associations between and within dependent variables (parenting behaviour, relationship satisfaction, mental health, and family communication and satisfaction) and independent variables (child

behaviour, deployment risk factors, and family coping strategies). Associations were considered between all variables to examine what factors may be linked with post deployment outcomes.

Fourth, structural equation modelling (SEM) was utilised to examine the theoretical associations between the pre-deployment measure of child behavioural difficulties (SDQ averaged across both parental reports) and deployment related risk factors as predictors of parental coping strategies and post-deployment outcomes (see Figure 1). The correlation for the pre-deployment SDQ measures across parents' reports was moderate ($r = .46, p < .05$), therefore they were averaged together into a single SDQ pre deployment composite to reduce variables. The coping variables in the structural equation model represented the military parent's post deployment coping strategies and the home parent's coping strategies during deployment. The structural equation model (Figure 1) tested the possibility that children's behavioural difficulties and deployment related risk factors were associated with post-deployment family outcomes via parental coping strategies. In other words, parental coping strategies were tested as mediators of the links between child behavioural difficulties, deployment risk factors and later family outcomes. These outcomes included the current (post deployment) assessments of positive and negative parenting behaviour, relationship satisfaction, family communication and satisfaction, and parental mental health. This model also tested the possibility of cross-partner effects, with pathways linking each parent's perceptions of coping strategies to their partner's outcomes. The SEM analyses were conducted with AMOS version 20. Three fit indices were calculated: the root mean square error of approximation (RMSEA), the comparative fit indices (CFI) and the Chi-Square (χ^2). This highlights one of the important advantages of using SEM with dyadic data, as data was collected simultaneously from both partners, this would violate the independence assumption of most other analytic techniques but this is not the case with SEM (Lee & Song, 2012).

Thus, differences between deployed and home parents were not examined using the typical approach of analysis of variance or regression strategies. However, with SEM, the analysis can consider individual effects while controlling for the partner's data, in addition to examining cross-partner effects while controlling for individual level data.

Findings

Descriptive Statistics. Table 2 below shows the descriptive statistics for parents' current level of functioning (post deployment). Measures of current functioning included: parenting behaviour (positive and negative), relationship satisfaction, family communication and satisfaction, depression, anxiety, PTSD, and total mental health screen scores. Scores of current functioning were similar between the deployed and home parent. Parenting behaviour was largely similar between parents, both showed higher positive parenting behaviour and lower negative parenting behaviours. Relationship satisfaction was identical between parents and indicated that the group were remarkably satisfied with their relationship at the present time (with a maximum possible score of 90 for the measure). Based upon group averages both the deployed and home parents reached, or were close to reaching, high levels of family communication and satisfaction (high levels indicated by a total score of at least 78), showing that families within the study had on average high communication and satisfaction. In regards to mental health screens, both parents screened at an identical rate for depression and anxiety (positive screen = total score of 5 or above, indicating possible mild depression or anxiety). One in four parents had a positive screen for depression, while approximately one in six parents had a positive screen for anxiety. Positive screens for PTSD were reported the least, with deployed parents being more likely to screen positive than home parents. However, in terms of cumulative mental health screens, the low means and small standard deviations suggest little comorbidity and on average both groups of parents scored roughly the same. In addition, 32.14% of both deployed and home parents scored a positive

screen across any mental health measure, which was only marginally higher than the level of positive depression screens, further indicating the lack of comorbidity.

Table 2:

Current Functioning of Military and Home Parent

Measure	Parent	M (SD) or %	Min-Max	Cronbach's Alpha (α)
Positive Parenting Behaviour	Deployed Parent	80.04 (9.23)	61-94	0.86
	Home Parent	84.11 (6.37)	66-92	0.80
Negative Parenting Behaviour	Deployed Parent	43.29 (10.53)	27-65	0.82
	Home Parent	42.00 (8.62)	22-58	0.80
Relationship Satisfaction	Deployed Parent	79.93 (8.39)	52-90	0.93
	Home Parent	79.93 (8.50)	59-90	0.94
Family Communication and Satisfaction	Deployed Parent	77.54 (11.73)	50-98	0.94
	Home Parent	79.82 (9.78)	61-97	0.93
Depression Screen	Deployed Parent	25%		0.87
	Home Parent	25%		0.79
Anxiety Screen	Deployed Parent	17.90%		0.86
	Home Parent	17.90%		0.83
PTSD Screen	Deployed Parent	14.30%		0.77
	Home Parent	7.10%		0.44
Any Positive Mental Health Screen	Deployed Parent	32.14%		
	Home Parent	32.14%		
Total Mental Health Score	Deployed Parent	0.57 (1.00)	0-3	0.94
	Home Parent	0.50 (0.88)	0-3	0.86

NOTE: $n = 28$ deployed parent; $n = 28$ home parent

Change Over Time: Child Behaviour and Family Coping. Table 3 below provides descriptive statistics (means and standard deviations) and the results (F values and p values) from a series of repeated measures analyses of variance that examined parents' perceptions of change in their children's behavioural difficulties, as well as family coping strategies, across the three time points of the deployment cycle. The analyses examined linear changes in deployed parents' reports, and quadratic and linear changes in home parents' reports. The descriptive results show that there are several significant perceived changes in child behaviour and coping strategies utilised across the deployment cycle. Based upon group level averages, child behaviour did not reach standardised levels of difficulty (a total score of 14 or higher) at any of the time points from the perspective of either parental group. For coping behaviours, both parents perceived significant differences across the deployment stages. However, the average scores are low in comparison to the possible total of 90, suggesting that there may not have been a need to cope with stress often across this time.

As mentioned previously, the deployed parents did not report on any measures during their deployment away from the family. Table 3 shows that for the deployed parent, they perceived a significant increase in both child behaviour difficulties and family coping strategies from pre deployment to post deployment (mean difference SDQ = 1.07; mean difference F-COPES = 2.43); indicating a linear trend. For the home parent, the results in Table 3 show that there was a slight increase in the home parent's perception of child behavioural difficulties from pre deployment to post deployment (mean difference SDQ pre to post = .93), but this difference was not statistically significant. When comparing pre and post deployment perceived coping strategies, the average for the home parent across these time points was almost identical. In contrast, for perceptions of both child difficulties and coping strategies there were highly significant quadratic effects. Home parents judged their children's behaviour to be more difficult during deployment than pre or post deployment

(SDQ mean difference pre to during = 2.54; SDQ mean difference during to post = -1.61). This was similarly evident with their perception of coping strategies utilised, with more coping utilised during deployment compared to pre or post deployment (F-COPES mean difference pre to during = 5.43; F-COPES mean difference during to post = -5.32).

In summary, the results of the repeated measures analyses suggest that children's behavioural problems and family coping strategies were not exceptionally elevated. Yet, both parents perceived changes to their children's behaviour and family coping strategies across the deployment. However, comparisons or differences between parents were not tested due to the non-independence of the data (Lee & Song, 2012). The deployed parent perceived increases in child behaviour between pre and post deployment, suggesting that they viewed child behaviour as more difficult when they returned from deployment. This in turn could have resulted in more coping strategies being employed during this time while readjustment occurred. Whereas the home parent perceived that children were more difficult during the deployment when they had reduced support, which would have necessitated the increase in coping behaviour utilised. However, they perceived these increases to subside once the deployed parent returned.

Table 3*Repeated Measures Analysis of Variance indicating change through Deployment*

Independent Variable		Pre Dep	During Dep	Post Dep	Linear	Quadratic
		M (SD)	M (SD)	M (SD)	F; <i>p</i>	F; <i>p</i>
<i>SDQ</i>	Deployed Parent	8.29 (3.31)		9.36 (4.38)	4.06; 0.05	
	Home Parent	6.96 (4.64)	9.50 (5.08)	7.89 (4.81)	2.36; 0.14	16.07; <0.001
<i>F-COPES</i>	Deployed Parent	44.89 (13.12)		47.32 (13.43)	5.25; 0.03	
	Home Parent	46.89 (13.80)	52.32 (12.61)	47.00 (15.35)	0.01; 0.93	16.97; <0.001

Bold: indicates significance at the < 0.05 level; $n = 28$ deployed parent; $n = 28$ home parent

Table 4

Bivariate zero-order correlations across independent and dependent variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1: Total Child Difficulties (both parents; pre deployment)	--	.06	-.44*	-.01	-.40*	-.39*	-.09	.29	-.26	.15	-.38*	-.26	.04	.41*
2: Deployment Risk Factors		--	.12	.10	-.32	-.12	-.22	.05	.48*	.30	.14	.08	-.45*	.09
3: Deployed Parent FCOPES (post)			--	.56*	.13	.15	.40*	-.08	.04	-.08	-.06	-.05	.05	-.01
4: Home Parent FCOPES (during)				--	-.05	.08	.40*	.24	-.07	-.06	-.18	-.03	.13	.27
5: Deployed Parent Positive Parenting Behaviour					--	.36	-.13	-.14	-.17	-.49*	.37	.12	.24	-.21
6: Home Parent Positive Parenting Behaviour						--	.25	-.19	.05	.21	.40*	.54*	.09	-.04
7: Deployed Parent Negative Parenting Behaviour							--	.07	-.12	.10	-.30	.04	.19	.17
8: Home Parent Negative Parenting Behaviour								--	-.24	-.09	-.43*	-.32	.39*	.47*
9: Deployed Parent Relationship Satisfaction									--	.65*	.56*	.35	-.54*	-.22
10: Home Parent Relationship Satisfaction										--	.18	.34	-.34	.06
11: Deployed Parent Family Communication and Satisfaction											--	.69*	-.47*	-.49*
12: Home Parent Family Communication and Satisfaction												--	-.47*	-.39*
13: Deployed Parent Total Mental Health Screens													--	.55*
14: Home Parent Total Mental Health Screens														--

NOTES: **Bold:** Correlation is equal to or greater than .30

*: Correlation is significant at the 0.05 level (2-tailed)

Bivariate Associations. Table 4 displays a correlation matrix of bivariate associations across the study variables relevant to the theoretical path model in Figure 1. The predictor variables (child behavioural problems, deployment factors, and family coping variables) are listed in the first four rows, while the five outcome variables of current family functioning are included in the bottom ten rows. Due to the small sample size, correlations between variables of an absolute value of .30 or higher are displayed in bold font, while statistically significant associations are noted with an asterisk (*). There were a large number of statistically significant associations (25 of 34 correlations) among the moderate and strong associations found.

Table 4 shows that child behavioural difficulties at pre deployment, as perceived by both parents, were associated with several variables. Parental perceptions of child behavioural difficulties were associated with lower perceived family coping by the deployed parent. For links with the family outcomes, increased perceptions of child difficulties pre deployment led to reports of lower positive parenting for both parents, lower family communication and satisfaction as viewed by the deployed parent, and higher mental health screens for the home parent.

In addition, deployment risk factors were moderately associated with lower positive parenting behaviour for the deployed parent. Interestingly, deployment risk and relationship satisfaction were moderately associated for both parents, representing that the more risk that was faced during a deployment the more satisfied participants were with their relationship at post deployment. Increased reports of deployment risk were also likely to result in lower mental health screens for deployed parents, another surprising finding.

For deployed parents, those who had higher perceptions of family coping behaviours were more likely to report an increase in their negative parenting behaviour. Additionally, their perception of family coping at post deployment was significantly associated with the

home parents' perception of increased family coping during deployment, which shows cross partner agreement.

Home parents reporting higher positive parenting behaviour were likely to also report an increase in their perception of family communication and satisfaction, which was additionally linked to the deployed parents' perception. In addition, deployed parents' positive parenting behaviour was linked to their own perception of better family communication and satisfaction. Both parents' perception of their positive parenting behaviour was related to one another, signalling a degree of mutuality. Interestingly, deployed parents who reported higher positive parenting behaviour were more likely to have lower relationship satisfaction as viewed by the home parent. Parents who had higher perceived negative parenting behaviour were likely to report lower family communication and satisfaction. There was a cross partner association with higher levels of home parents' negative parenting behaviour linked with lower perceptions of family communication and satisfaction on behalf of the deployed parents.

Relationship satisfaction was strongly associated between parents and was also linked to higher reports of family communication and satisfaction by each parent. In addition, a cross partner effect was indicated with deployed parents' relationship satisfaction being associated with the home parents' perception of increased family communication and satisfaction. Increased relationship satisfaction as perceived by each parent was associated with lower reports of mental health screens for the deployed parent. Higher reported family communication and satisfaction was strongly associated between parents and correlated with lower reports of mental health screens for each parent. Additionally, a cross partner effect was noted between each parents' perception of family communication and satisfaction upon the others' mental health score. Lastly, both parents' mental health screens were strongly associated with one another.

Path Analysis with Structural Equation Modelling (SEM). Figure 1 below shows the theoretical model of associations between child difficulties (SDQ), deployment risk factors, coping strategies, and post deployment parent outcomes that were tested with SEM. Table 5 below, outlines the pathways with a corresponding letter to allow easier comprehension of associations discussed. As mentioned above, the SDQ score utilised was an average of both parents' pre deployment perception of child difficulties. For coping strategies utilised by family units, the model included the post deployment F-COPES score of the deployed parents and the home parents' F-COPES score during deployment. As mentioned previously, it was anticipated that child behaviour pre deployment and risk factors during deployment would impact family outcomes at post deployment, but that these may be mediated by family coping. As can be seen in Figure 1, there are two possible mediating pathways for each predictor-outcome association. The first pathway is a within partner pathway with pathways *a* and *i* mediating pathway *b* in the association between child behaviour and the deployed parental outcome. The second possible mediating pathway is a cross-partner pathway, as pathways *d* and *k* mediate pathway *b* and the association between child behaviour and deployed parental outcome. However, upon close examination of the bivariate associations, it was evident that due to the number of null associations between the predictor variables (behaviour, deployment factors, and parental coping) and across the predictor variables and dependent variables, there were very few possibilities for mediation according to the guidelines outlined by Baron and Kenny (1986). Nevertheless, due to some of the surprising bivariate associations (e.g., increased deployment risk associated with better relationship satisfaction for both partners) the structural equation models were tested for all the dependent variables to examine possible changes in associations while controlling for the influence of the partner or the self.

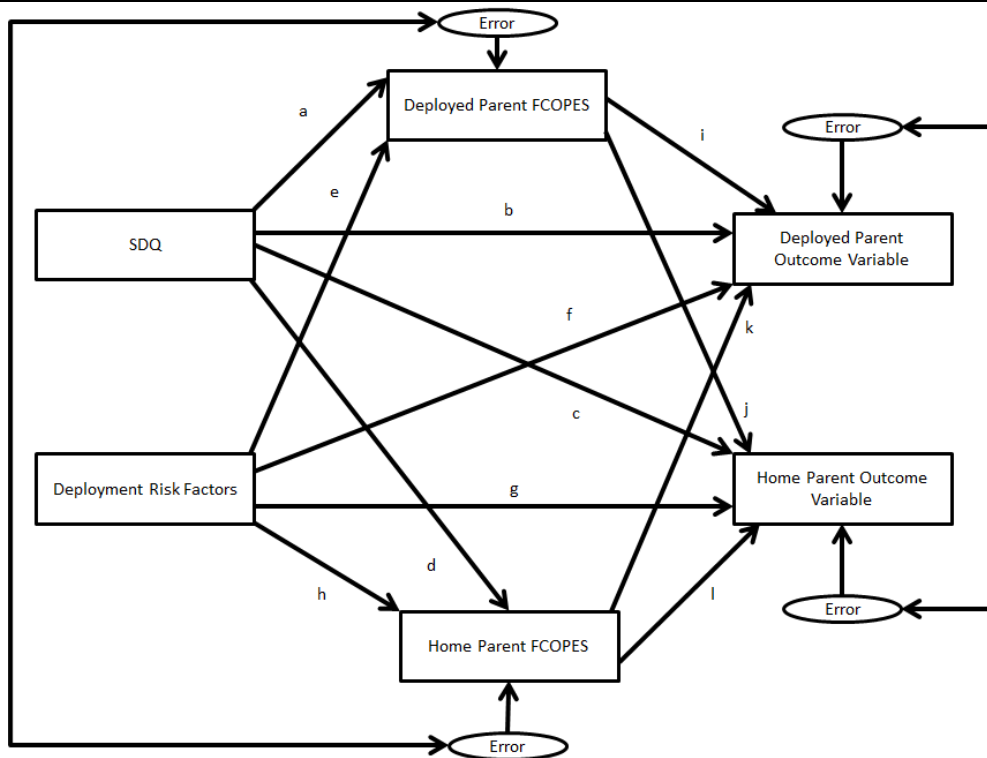


Figure 1. Structural Equation Model pathways utilised for analyses.

Table 5

Accompanying labels for pathways as represented in Figure 1

Path Label	Pathway
<i>a</i>	SDQ → Deployed Parent FCOPES
<i>b</i>	SDQ → Deployed Parent Dependent Variable
<i>c</i>	SDQ → Home Parent Dependent Variable
<i>d</i>	SDQ → Home Parent FCOPES
<i>e</i>	Deployment Risk → Deployed Parent FCOPES
<i>f</i>	Deployment Risk → Deployed Parent Dependent Variable
<i>g</i>	Deployment Risk → Home Parent Dependent Variable
<i>h</i>	Deployment Risk → Home Parent FCOPES
<i>i</i>	Deployed Parent FCOPES → Deployed Parent Dependent Variable
<i>j</i>	Deployed Parent FCOPES → Home Parent Dependent Variable
<i>k</i>	Home Parent FCOPES → Deployed Parent Dependent Variable
<i>L</i>	Home Parent FCOPES → Home Parent Dependent Variable

The results of the SEM analyses showed that when compared with the bivariate zero order correlations (Table 4) of the same variables, there was little change in the associations after controlling for the within and cross-partner paths. It was also evident that there was no mediation of post deployment outcomes on the family by perceived coping strategies utilised, as evidenced by little change in the direct associations. This was true for all models except with the model examining the outcome of family communication and satisfaction. Figure 2 below, is identical to Figure 1 except that the corresponding standardised coefficients have been inserted into the pathways for the SEM path model examining family communication and satisfaction. There were moderately strong and direct associations evident between child behaviour and both parents' perception of family communication and satisfaction (pathway *b* and *c*). This suggests that increased child behaviour problems before deployment may lead to less family communication and satisfaction at post deployment. There were also notable associations (although non-significant) between the deployed parents' FCOPES (pathway *i* and *j*) and both parent's satisfaction and communication. Specifically, higher reports of coping behaviour from the deployed parent were associated with lower family communication and satisfaction reported by both parents. Together, these pathways between child behaviour and family communication and satisfaction, and the deployed parents' FCOPES reports and family communication and satisfaction show some interesting changes compared to the bivariate associations in Table 4. Across all four of these paths, the associations became stronger. The associations between deployed parents' FCOPES and family communication and satisfaction (pathway *i* and *j*) were near zero in the bivariate associations, but within the SEM analyses these associations become more substantive (deployed parent: -.06 to -.27; home parent: -.05 to -.30. However, *p* values were still non-significant in the SEM analysis). In similar fashion, there was a stronger association between the SDQ and both parents' perception of family communication and satisfaction (pathway *b*

and c) in the SEM analysis (deployed parent: -.38 to -.51, p values significant $<.05$; home parent: -.26 to -.40, p values non-significant) with rather small associations becoming moderately strong. These results suggest a suppression effect, where the predictive utility of an independent variable becomes stronger after controlling for third variables. There are many possible explanations for suppressor effects, but one likely explanation for this occurrence is that when the correlated confounding effect between the SDQ and coping variables are controlled for, the error variance in the equation is reduced resulting in stronger direct effects (MacKinnon, Krull, & Lockwood, 2000). Although the difference between associations is noticeable at face value, the changes were not statistically significant for mediation or suppression (Sobel, 1982), which is likely due to the small sample size and low power. The direct pathways from deployment risk factors to family satisfaction and communication were quite small for both parents (although a bit larger for the deployed parent; $\beta = .21$) and the additional paths in the model with the home parent FCOPES report was largely similar to the bivariate associations in Table 4. Overall, the fit indices for the model were good (Chi Square = 0.09 (2), $p = .77$; CFI = 1; RMSEA = 0.00).

In summary, the quantitative analyses revealed a number of interesting findings, a few of which were rather surprising. First, based upon analyses of variance both parents perceive adaptations across the deployment differently. Although both parents perceived child behaviour to change, on average it did not reach levels representative of clinical significance. Second, measures of current functioning indicated that a substantial number of families were potentially experiencing mental health concerns, yet other measures indicated that they may still be faring well when compared to possible total scores. Third, correlational analyses and structural equation modelling indicated interesting associations between increased child behaviour and reduced coping utilised as perceived by the deployed parent; increased risk and increased relationship satisfaction for both parents; increased risk and reduced positive

mental health screens for the deployed parent; and lastly increased positive parenting behaviour of the deployed parent being linked to reduced relationship satisfaction as perceived by the home parent. These quantitative results were not expected and although research was exploratory these factors were noted as interesting and will be examined further within the discussion.

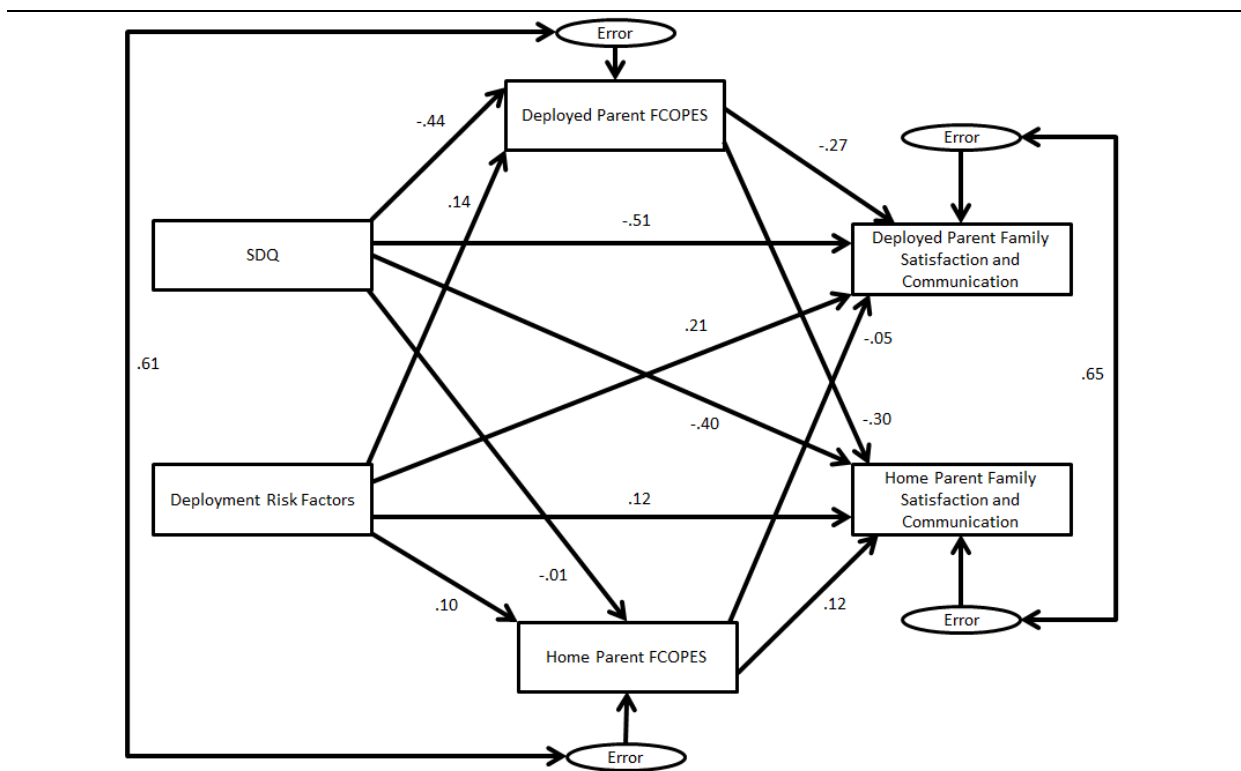


Figure 2. Structural Equation Model for family communication and satisfaction, standardized coefficients added. (Chi Square = 0.09 (2), .77; CFI = 1; RMSEA = 0.00).

Chapter FOUR

Qualitative Results

Data Analysis

The process of coding the open-ended questions from the interview followed Braun and Clarke's (2006) proposed thematic analysis, which is based upon Grounded Theory (Corbin & Strauss, 2008). This particular method was utilised as it does not have a strict theoretical underpinning, which allowed it to be applied flexibly. The authors' argument for differentiating this process from Grounded Theory was that thematic analysis is widely used but often falsely labelled as Grounded Theory because theories are generally not produced (Braun & Clarke, 2006). However, it is similar to other coding methods such as interpretative phenomenological analysis (Smith and Osborn, 2003) and narrative analysis (Murray, 2003); its use within the current study was based upon its development from Grounded Theory.

Thematic analysis is a recursive process that requires continued exploration between the raw data and emerging codes (Braun & Clarke, 2006). The goal of the analysis was to create themes from the data employing specific wording or ideas expressed by participants. Although several different questions were asked of participants, responses superseded these with themes and categories branching across questions into general concepts of participants' experiences through deployment.

The procedure involved familiarisation with the data during transcription of audio files, this included noting emerging themes or areas of interest. Once all raw data had been coded based upon participant wording or ideas, it was sorted into themes and related areas. This process involved grouping similar codes together, based upon use of common language or conveyed meaning. As a process it required re-reading raw data and codes to make themes succinct. This involved several themes such as improved relationship and improved appreciation becoming merged due to the conceptual overlap within participant responses.

When overarching themes were formed, the context of the code in the raw data was examined to further understand the link and reaffirm correct categorisation. For example, the main theme of improved outcomes included positive adaptations that had occurred for families; when initial responses were referenced back to the raw data it became clear that these were positive and allowed several sub themes to be encompassed by this main theme. The next step was thematic refinement, where sub themes and main categories were referenced to the raw data and examined in relation to participant responses, questions asked, the context of the quotations and accuracy of the coding before becoming finalised. Several themes and codes were re-worked to increase representativeness of the participants' experience of deployment as a family. This was done largely within the main theme of New Zealand Defence Force; where factors controlled by NZDF varied largely and were therefore split into smaller themes to improve the representativeness of participants' experiences. Subsequently, several small sub categories were created to encompass codes that did not fit in other sub categories but were explained by central themes (Resilience, Positive lifestyle change). Overarching themes were created broadly to incorporate as many sub themes as was logical, leading to expansive themes that explored many caveats of the deployment as experienced by a family. Some main themes were initial coding categories that had been expanded to include other themes, such as positive coping strategies that become more encompassing when similar categories were considered in relation to participants' experience of deployment. The final main themes that emerged based upon participants' experience of deployment were: External Support, Improved Outcomes, Positive Coping Strategies, Core Family, New Zealand Defence Force, Difficulties, and Suggestions.

The primary author and a graduate research assistant both categorised the same set of data for all 28 participants, with 141 responses that were coded into the 19 categories. Once completed, discussion ensued to determine agreement. An inter rater reliability estimate was

calculated through Cohen's Kappa (κ ; Cohen, 1960), which produces a coefficient between zero and one with a higher score indicating greater reliability (.70 or above is considered good agreement; Fleiss, 1973). This analysis revealed reasonably good intercoder reliability ($\kappa = .79$), suggesting general agreement for the categorisation scheme.

Findings

The categories that were formed ranged from discussing what helped during deployment, what impeded adaptation, what the military did during the deployment cycle (positive or negative), and the reintegration process at the end of the deployment. Discussion of categories will follow below, with quotes, summaries, or key words from participants used to give voice to their experiences and perspectives. These are presented in italics with the participant ID numbers in parentheses. The findings are organised according to the six main themes (with difficulties and suggestions separated into their own sections), with sub-themes included for each where relevant. These findings conclude with a description of cultural considerations that were related to deployment adaptation for families identifying as Māori.

External Support. This major category encompasses support provided by the community, friends and extended family. These themes all involved significant support systems that were external to the nuclear family. Mention of these external supports by participants was largely positive, except in instances where it was not present and therefore was discussed as a factor that would have improved the deployment experience.

Community Support. The theme of community support was mentioned by 60.7% of participants, in a largely positive manner. It exemplified how the military community bonds together and supports one another during deployment and other times of difficulty, in some instances *replacing extended family* due to geographical separateness by providing child care and extra support (M002). Military personnel and their families are often relocated which can result in separation from extended family, an avenue of support that is compensated for by

becoming an active member within the military community to utilise the support network available. Comparisons were made between military and civilian community support, with the military community being a stronger source of support due to a common understanding of the demands. The only negative component mentioned by several families was that becoming a part of this community required networking and significant effort, which left recently relocated families without the support network (M001, M006). However, these families did identify that support from the community is great and had subsequently established connections that were stated as beneficial but would have helped across the deployment.

Family & Friend Support. The support from this group is similar to that offered by the community mentioned above; with offers of childcare and emotional support. One home parent (M011) stated that family and friends would *almost replace the deployed parent*, which was alluded to by other participants who acknowledged that they spent more time with these groups than they usually would have (M012, M022). Family and friends are viewed as incredible support networks that were relied upon heavily during deployment, based on close contact, reliability and trustworthiness. Several participants noted one negative with this network was that they often had a significant relationship with the deployed person, which can lead to an increase in stress already experienced by the family (M009, M016). This increase in stress was due to the friends and family becoming worried about the deployed parents' safety, causing the home parent to worry more when mutual concerns were discussed. The absence of support from friends and family was also a negative component, however, this was viewed both as a detriment and as having no effect but varied between families who mentioned it in this context.

Beneficial Outcomes. The common link between the themes that fall under this category is that they occur after the deployment, or directly because of it, and are viewed as advantageous to the family. Due to being beneficial outcomes, all responses considered were

discussed in a positive light regarding the outcome or how it helped through the deployment process.

Financial Benefit. Financial benefit came from each deployment due to an increase in wages for personnel who are deployed; which is dependent on the risk level of deployment, as well as role and rank on the deployment. The benefit of increased pay was emphasised by more than half of families as a positive aspect of deployment. The extra income was generally saved for travel, a house deposit, or cars, and utilised at post deployment. For several families, the significant increase in wages was used to provide extra support and stress relief. For example, hiring babysitters, nannies, physical labourers and live in care; which helped these families adapt to the increased demands due to the deployed parents' absence. Stress relief was additionally sought by using the money to keep the children occupied through various means such as outings, more frequent purchase of takeaway meals, or purchasing required necessities.

Improved Relationship and Appreciation. Twenty-two couples (78.6%) described an improvement in their relationship between them or their child(ren) at post deployment. One factor implicated in this improvement was involvement in a critical incident resulting in reflection upon life. This additionally produced an increased appreciation of their family and life in general. Several deployed parents attributed this change in perspective to comparing their home lifestyle with individuals in the country of deployment. Some participants clarified this realisation as a *change in priorities* (M010, M016), either due to the time away from their family, or through their involvement in a critical incident that caused them to reflect about what was important.

Improved relationships were furthermore attributed to time spent together as a family while reintegrating during post deployment, as it tended to be intensive at first to allow adjustment. Both parents reported an improved relationship with children. The home parents'

relationship with their children was perceived as improving due to a large amount of time spent together during the deployment. Whereas the deployed parent would re-establish this connection and in several instances post deployment leave was aligned with school holidays, accommodating intensive bonding. Participants additionally attributed improved relationships to their increase in appreciation of life in general and through not knowing what they had *until they had to go without* (M025). Appreciation and relationship satisfaction appeared to be linked as appreciation enhanced by the deployment improved their relationship, and due to the improved relationship they became more appreciative.

Resilience & Perseverance. This theme was identified by five families, acknowledging that a positive result of the deployment was that they were, *able to get through it* (M013, M014). Knowing that they had endured a significant separation gave the home parent a sense of accomplishment and realisation of their resilience. This was often attributed to the home parent but included the whole family in some instances. Therefore, this yielded a further small sub category that was not identified until later in the thematic analysis process, and only included a small number of responses. However, this was deemed an important outcome for the family based upon a positive view of what could have been a negative experience.

Positive lifestyle change. This directly involved two military parents who, as a result of the deployment, made a positive lifestyle change and gave up behaviours that they deemed to be negative. One gave up drinking while on deployment as it was in an alcohol free environment. This was also mentioned by another participant as a positive due to reducing issues between soldiers that had occurred in the past (M015). Another deployed parent gave up internet gaming. At pre deployment, this individual admitted to spending large amounts of time online. However, once he returned he reduced the time spent gaming and became more appreciative and involved with the family. This specific example is indicative of an improved

appreciation as a result of the deployment, which encouraged the positive lifestyle change showing a convergence between subordinate themes within beneficial outcomes.

Positive Coping Strategies. Sub themes within this category indicate specific methods that were not encompassed under the quantitative measure but were utilised in the successful adaptation to various stages of deployment. Communication, alongside Routine, Structure and Milestones, were generally discussed regarding managing during the deployment. Whereas Deployment Experience was broader and included strategies utilised across the entire deployment cycle, with more experience increasing knowledge of specific management and navigation through the stages as a family. Lastly, for the Reintegration sub theme, participants specified methods utilised by families and the deployed parent to reconnect as a family at post deployment.

Communication. Communication during the deployment period was viewed as important and very beneficial by all participants who mentioned it. Methods of communication utilised involved; texting, emails, phone calls, letters, mailed gifts, and Skype. Skype was mentioned as a benefit for younger children who would get bored of the phone, allowing them to see their parent, which allowed the children to recognise them upon return. In part, communication was utilised to solve small issues that arose and *removed the distance* allowing easier reintegration of the family (M008, M015, M017, M026). This was attributed to allowing the family to acknowledge growth and changes instead of expecting the same individual who left returning, or the family to be the same (M015, M017). All mention of communication during the most recent deployment was frequent and seen as beneficial. Several participants discussed communication during earlier missions as miniscule and marred by technological or logistical limitations, instigating issues during the deployment and reunion. It was acknowledged that the ability to establish communication while deployed has improved significantly in recent years.

Routine, Structure, and Milestones. This category concerns a particular method of coping with the absence of one parent. By increasing organisation the home parent can compensate for diminished support (M007). This theme was mentioned by most of the families interviewed as an effective coping method (22 out of 29). Through the formation of a rigid structure, the home parent can *maintain a normal routine* that resulted in the family being busy and allowed time apart to be perceived as passing faster (M009). In addition, having everything planned and organised left little room for error or surprises, which maintained a sense of control over the situation (M007). This coping strategy additionally involved creating milestones throughout and after the deployment. For example, home parents planned a trip away, visits to or from extended family, takeaway meals or movies, and in three instances a birth was expected at post deployment. These broke the deployment down into more *manageable chunks* (M004). This was especially beneficial for children, where organising several rewards through the deployment meant they were able to comprehend the time until their parent returned and also acted as a distraction.

Deployment Experience. Participants indicated that the more deployments experienced or time spent in the military made the deployment easier, based upon knowing what to expect and how to react. The average time spent in the military was 14 years but this ranged from 2 to 27 years across participants, showing a diverse range of experience. Several participants noted difficulty with their first deployment, in particular the time apart and adjusting to being together on return. However, this was used as a *learning curve* with families knowing what to expect on the next deployment and what would reduce difficulties (M022). Age and level of maturity were viewed as components of experience, allowing an easier transition through understanding the process and the individual. A key point to this theme, mentioned by one family was that the amount of time military personnel spend away from home gradually increases (M027). Initially this starts off with a few weeks for an

exercise, which may increase to a month or two. Pre deployment training may be longer, but it builds up the time apart effectively conditioning families to separation. Although it was mentioned by one family, it exemplifies a process that occurs and is a common occurrence as the military is constantly up-skilling their personnel. Three families were experiencing their first deployment, and although they lacked the extensive experience of others participants, they acknowledged that it was a learning curve and were able to successfully adapt to the deployment with few challenges. However, other families in retrospect identified the first deployment as unpleasant, yet it had subsequently prepared them for the most recent deployment.

Reintegration. The stage of reintegration involves the process of the deployed parent returning and re-joining the family. This theme encompasses the many different ways families adapted to the reunion. A particular method of reintegration utilised was a family trip away with the purpose of reconnecting with each other, with one family stating that being in a *neutral environment* away from daily routines made the trip more beneficial (M023). Upon return from deployment, military personnel are given an extended amount of time off. For several families this coincided with school holidays and was utilised by the deployed parent to spend some quality time reconnecting with their children, and that worked well in the instances it was mentioned. Specifically the deployed parent was given sole charge of childcare while the home parent worked. Several participants stated that this resulted in a *stronger relationship than existed pre deployment* (M012, M013, M015, M027). Another strategy required the deployed parent to stand back from routines, decision making and discipline; to understand how things may have changed and allow themselves to adjust into the family's routine by *modifying their behaviour* (M023). An emphasis was put on being *intentional* with standing back from these processes, but the adjustment into the family tended to *happen naturally* (M009). It was suggested that there was a need to accommodate

time for transition and that adjustment would *take time and should not be forced* (M003). One family noted that this process was very easy due to the large amount of contact they had during the deployment, making it feel like *they had not been gone* (M014).

Core Family. This main category involves the mention of the nuclear family and is broken into two sub themes. Children as a theme were discussed extensively, focusing upon behaviour changes and the perceived impact of age on the deployment experience. While the Partner theme proposed personality as a key influence on managing deployment.

Children. The theme of children focuses on age, level of understanding, growth, and behavioural changes. Participants' discussions with children concerning why the parent was deployed typically involved only disclosing *age appropriate information* about the deployment (M005, M025). For this, a useful tool for younger children was representing time visually. For example, the use of a snake poster with segments that symbolized days the parent was deployed, which required colouring each piece and allowed easy comprehension of time.

Separate from the SDQ, parents reported that child behaviour changed across the deployment. This was either described as positive, by becoming more independent, mature, helpful, and acting as support; or this was described negatively, by playing up, or acting out. Few families had negative behaviour changes that were not managed, as most issues appeared to subside once the deployed parent had reintegrated, or immediately on their return. It was more common for the oldest child to have behavioural issues, and this was attributed to puberty or hormones, pushing parental boundaries, or as a reaction to the expectation of increased responsibility owing to their age. For younger children behavioural changes were primarily attributed to a lack of emotional control or understanding because of their age. Several deployed parents stated that it was difficult seeing the growth that had occurred while they were away. This was cited as an initial struggle when reintegrating due to expecting their

children to be the same as to when they had left, which lead to initial complications with discipline and routines.

Partner. The home parents/partners were involved in many of the already mentioned categories, yet this theme emphasises individual factors that made the deployment easier or hindered it. The personality of the home partner was discussed; with the perception that an *independent* partner would fare better during a deployment compared to a *clingy* or *uncertain partner* (M020). Many home parents could be described as independent due to their experiences with deployment, but several who found it more challenging, appeared less independent and requested more support from the deployed parent. In addition, there was a need for the deployed parent to still be *involved in parenting decisions even while deployed*; as discussed by participants in regards to schooling, discipline or what children should be allowed to do (M025 and M003). It was noted that deployed and home parents needed to be supportive of one another and realise the difficulty they both faced. This appeared to be beneficial in the decision making process, allowing for more independence of the home parent when their decision was supported by the deployed parent.

New Zealand Defence Force (NZDF). This main theme is the broadest as it encompasses areas discussed by participants that were influenced or controlled by the NZDF. The theme of Job on Deployment concerns the role of the deployed parent while away. Relocation was viewed negatively by all those who experienced it or had in the past, acknowledging it as an unnecessary stressor when orchestrated close to a deployment. Support that the NZDF provided was viewed as both positive and negative in several aspects, which will be discussed. The confidentiality of mission details led to some difficulties in families but it was understood and accepted as part of the role. Lastly the organisation of the deployment included length of deployment, notice given before, pre deployment training and mid deployment leave; which were all discussed in varied degrees.

Job on Deployment. This theme concerns deployed parents' specific job while deployed and was largely viewed positively. Examples included gaining knowledge in their specific trade, utilising or validating their training during conflict, learning how to manage a critical incident, and aiding others in doing the same. A number of deployed parents found this aspect to be refreshing as they felt stale and bored of their peace time duties, giving a boost in enthusiasm for their career. This led to an appreciation of their job, and on their return home, deployed parents were more positive, which in turn may have led to more beneficial outcomes at the family level such as improved relationships as discussed above.

A large portion of personnel (71.4%) were impacted by critical incidents during their deployment, with some having difficulties accepting the casualties due to direct involvement, or having a bond with those lost. Yet some personnel were less impacted by the incidents as they had prior experience, therefore they were able to rationalise the impact upon themselves and through discussion validate the accompanying emotions, thoughts and issues for other personnel (M014 and M018). One deployed parent had a negative job experience as they had volunteered to fill a certain role which changed, and was subsequently underworked and overworked. This resulted in resentment of the deployment. Another deployed parent felt at risk due to command decisions around protocol and procedures during patrols, yet acknowledged the positive aspects of gaining experience and the excitement of the deployment.

Relocation. Relocation of the family unit was identified as a negative impact upon how the family adapts during the deployment cycle. When relocation occurred shortly before a deployment, participants noted that not having established social support networks made the deployment difficult (M001, M006). However, some families were relocated into areas they had previously lived, and therefore had pre-established networks, making it comparatively easier than other relocations (M015, M026). One particular family was

relocated during the deployment but was not impacted negatively and instead utilised it as a distraction (M009). Another family was relocated shortly after the deployed parent returned, which was stated to have impacted their reintegration process negatively by the addition of further changes and stress, leading to an extended period of adaptation (M003). It was suggested that relocation should not occur around a deployment due to the stress it puts on a family, when they should be reconnecting after a deployment or preparing for the separation.

NZDF Support. One key area that NZDF focuses on is the support given to the home parents, which involves attendance of briefings concerning the deployment, and guide books on what may occur across the deployment cycle (specifically around the patterns of emotions experienced). Contacts were also provided from personnel's units or officials who may be helpful such as the padre (military chaplain), deployment services officer, or the camp psychologist. This was viewed as positive but frequently required initiation on the part of the home parent. This need to initiate dissuaded some families from seeking support (M001). However, there were instances when critical incidents occurred and home parents were not informed (correct procedure dictates that all next of kin of deployed personnel be informed of their safety), which was an oversight by NZDF. Some families expected more support than was provided due to having more support on past deployments, resulting in disappointment in the support system. Another component of NZDF support was evident for dual military families. When the home parent was also military personnel, they were able to access information that civilian partners may not have been able to, and had increased contact with their deployed partner. Additionally, this improved their level of understanding of what a deployment involved and allowed them to be more accepting. One dual military family noted that the NZDF were great in regards to support provided, but that it was targeted at civilian partners resulting in feeling left out and that they should have more tailored support (M028).

Confidentiality. Participants had issues with confidentiality due to not being able to discuss certain topics during deployment. This was understood but noted to have made some situations difficult. For example, information regarding critical incidents could not be mentioned and disrupted military personnel discussing the impact. Two particular home parents (M001, M003) were told by NZDF officials not to discuss certain events involving medical issues and knowledge of an impending relocation with their deployed partners. These two instances put the family under unnecessary stress. The reason behind confidentiality is for the safety of the deployed personnel, as certain information could impact their performance or cause the mission to be compromised.

NZDF's Organisation of Deployment. As a category this encompasses factors of the deployment controlled by NZDF not mentioned in the themes above. This included the length of the deployment; longer deployments were perceived as more difficult for both parents due to the time apart, while others experienced shorter deployments that were deemed more manageable. The amount of notice given before a deployment was contested; some families preferred short notice as the build-up to deployment can be harder than the deployment itself due to the tension of knowing the separation will occur (M027). Other families preferred more notice as they were able to be more organised but this depended upon personal preference and the family dynamic (M004). One family had extended notice by being moved to a later deployment, and perceived this as negative due to the build-up and surrounding stress being prolonged (M027). Mid deployment leave was another noted area, with three deployed parents using it to visit family, while one did not return home as they believed that it would disrupt the family's routine. Several families identified that having leave would have been beneficial especially during deployments longer than the standard 6 months, but it was not offered. The NZDF may have various reasons why notice of deployment, length of deployment, and the availability of mid deployment leave differ. Yet these may not be

feasible to change based upon the mission type, required operational outputs, and other components that cannot be fully disclosed.

Difficulties. This theme is broad but was defined by anything that made the deployment cycle difficult and was not able to be sufficiently categorised under any other theme. Included in this was the absence of one parent, which led to an increase in responsibilities and stress for the home parent created by the separation. This component of the absence itself is an antecedent to the increase in stress and responsibilities that were the difficulty, with the family representing a single parent family for an extended period of time (M012). Compounding issues arose during the deployment making the experience more difficult and included earthquakes, the earthquake commission (EQC), first deployment, medical issues, and mental health challenges. A key difficulty that impacted the families were the occurrence of critical incidents that affected the deployed parent through their direct involvement or by knowing the individuals involved. This tended to cause the family to worry about their loved one's safety and caused feelings of helplessness. Grief could also be experienced by the family back home due to knowing personnel lost or individuals affected, which can often affect the entire community. However, two deployed parents (M014, M018) were able to rapidly adapt to the occurrence of critical incidents with minimal impact; one participant stating that they suffered from *post-traumatic growth disorder* (M018) where a personal improvement was gained due to the occurrence of the incident, validating their training and providing a sense of excitement. In relation, the media coverage of the incidents increased worry particularly for younger children who could not comprehend what was happening (M026). The impact of critical incidents was complex with each family reacting differently to the event. As discussed above this particular stressor often facilitated reflection and increased appreciation of home and family and was linked to subsequent improvements in perceptions of relationship quality.

Suggestions. Along with general discussion of the deployment experience, specific suggestions for the NZDF were made by a few participants. Four families described the use of counselling services after a previous difficult first deployment. These services were used after the reunion when difficulties had continued, specifically targeting communication strategies and problem solving tactics to aid in reconnecting. The use of counselling although not directly offered through the NZDF, can be accessed through their services or military Chaplains. A suggestion was made that the NZDF should directly offer these services to individuals who are experiencing deployment, and should be available to families with minimal experience or facing their first deployment (M012). The first deployment was retrospectively recognised as a difficult learning curve, with several families seeking additional help after not reintegrating successfully. Another suggestion was that NZDF should offer more practical support during the deployment. One example given was lawn mowing services or other physical labouring (M006). Relocation was discussed above as an unsettling event with a specific suggestion of a '*no relocation policy*' involving a time frame of six months either side of an operational deployment to minimise disruption (M015). Three families had experienced the detrimental effects of lacking support networks during this time, either pre or post deployment and noted the relocation as a key cause of the extra stress. A suggested area where NZDF could implement more support was during minor missions or when personnel deploy with different contingents or bases. Several families identified that on these occasions they missed out on basic support offered by the NZDF, such as contact with the deployment services officer or receiving deployment guidebooks and newspapers (M013, M015). The final suggestion for the NZDF was given by one family but could have been utilised by a number of families, and would involve a structured support programme for adolescents with deployed parents (M030). This particular family had difficulties with their teenager misbehaving. The family suggested that a support group of similarly aged children

or teenagers could be formed where they could be around others in similar circumstances. It would be utilised for discussion and to develop an understanding of their situation with the accompanying emotions instead of acting out. It was noted that partners of deployed personnel were given this opportunity, whereas teenagers were not. It could curb misbehaviour, while allowing better reintegration of the deployed parent and less stress during the deployment. These suggestions are based upon several participants' responses but if utilised would benefit a number of families and could greatly improve the deployment experience.

Cultural Considerations. Twelve families identified as Māori. Of these families, several noted that their culture did not influence their daily life or deployment experience. However, those that considered it important emphasised family/whanau connectedness as beneficial throughout the deployment due to supportiveness. Even if they could not be there physically, they still felt that connection based on strong family ties due to a cultural focus upon extended family/whanau. Identifying as Māori and knowing about one's culture was viewed as important, resulting in an increased sense of identity and pride. A number of families had their children in Kohunga (Māori early education and childcare centre), involving immersion of the children in their culture through activities and the use of Te Reo, that continued at home in most instances. When discussing how the NZDF took their culture into account, the majority responded that it was not taken into account. Rather, these participants acknowledged that the NZDF has a strong Māori underpinning of cultural values, allowing it to align easily with those who identified as Māori or be viewed as culturally sensitive. An interesting side note is that families who identified as Māori and had active involvement in their culture were more common in families from Linton compared to the Burnham based families.

In summary, the qualitative results tended to explain certain aspects of families experience across the deployment cycle, whether positive or negative aspects, and included suggestions for alterations that would be beneficial for future deployments. Additionally, these results highlight key areas such as positive coping strategies that could be utilised by families facing deployment as ways of successfully negotiating adaptations. Whereas, several factors within the NZDF theme were viewed negatively due to factors that were out of families control and were perceived to add additional difficulties. However, participants were readily able to make recommendations for alterations that may facilitate transitions across deployment. This qualitative information gives a glimpse into how adaptations occurred for families who faced deployment and aids in understanding the processes of separation and reintegration.

Chapter FIVE

DISCUSSION

Review of Results

The purpose of this study was to investigate the experience of military families across a deployment cycle concerning adaptations to separation and reunion. To date, existing studies tend to focus on the military personnel or the child instead of the entire family unit. Previous research has documented problems with adjustment but little research has been conducted around factors that may be influencing adaptations (Taft et al., 2008). The current study used an exploratory mixed methods approach to analyse the experience of the family in several domains to accommodate the breadth of possible effects of separation. Research aims focused on understanding the readjustment period after a deployment, examining deployment factors that impact current functioning, identifying resilience factors that could be utilised to improve support for those who find deployments challenging, and understanding participant perceptions of how deployment transitions may be further facilitated. Information was collected through parental reports of child behavioural difficulties, coping strategies, parenting behaviour, relationship satisfaction, family satisfaction and communication, and mental health; either across the deployment or as an indicator of current functioning.

Several interesting results were found that indicate that families were functioning relatively well at post deployment, but approximately one third of parents were experiencing some form of mental health challenges. The following is a brief summary of the major findings from the current study. In subsequent sections, the results are discussed as they relate to previous research and family systems theory. This will include carefully interpreting the present findings in light of the study's strengths and limitations alongside previous research and theory. The implications of these results may then be adequately understood in their relationship to families facing separation and reunion.

Family re-adjustment after a military deployment. The descriptive statistics for the measures of current functioning included, parenting behaviour (positive and negative), relationship satisfaction, family communication and satisfaction, and mental health screens. These indicated that on average parents judged themselves as using more positive parenting behaviour compared to negative behaviours. Parents were also fairly satisfied in their partner and family relationships, even while a significant minority were dealing with symptoms of depression (25%) or anxiety (17.9%). These results suggest that on average parents perceived their relationships and families to have readjusted or are at least functioning well after deployment. While at the individual level a concerning portion were facing mental health challenges.

As indicated by the repeated measures ANOVA results, parents' recollection of child behaviour problems and family coping strategies showed significant changes across the deployment cycle. Potentially pointing to the adjustment required by families in adapting to different stages of deployment. Home parents perceived the stage during deployment as comparatively difficult. The increase in child behavioural issues and coping strategies subsided at post deployment to levels similar to pre deployment, suggesting a perceived return to normality. For the deployed parents, they perceived post deployment as significantly more difficult in comparison to pre deployment. This signifies that both parents' perceived change but the home parents did not perceive the post deployment period as any more challenging than pre deployment. It appears that perceptions of difficulties may be skewed towards when each parent was likely to have personally experienced greater demands in adapting to family circumstance.

As outlined through the correlational analyses, many of the assessments of current functioning were associated with one another showing both within and cross partner effects. Interestingly, positive parenting behaviour of the deployed parent was linked to reduced

relationship satisfaction for the home parent. A speculative explanation for this result is that it could indicate an over investment by the deployed parent into the parent-child relationship upon their return, that could lead to the diminished relationship satisfaction. Measures of parenting were not consistently associated with each other or the other current functioning measures, apart from the home parent's negative parenting. Home parents' increased negative parenting was significantly associated with decreased family communication and satisfaction (but not partner relationship satisfaction) and increased mental health screens for both self and partner. Almost all the associations across the relationship and family satisfaction measures and mental health screens showed substantive and often significant associations both within and across partners. An exception to this trend was that relationship satisfaction of either parent was not associated with the home parents' mental health scores. Yet increased relationship satisfaction for both partners was associated with lower mental health scores for the deployed parents.

As for a qualitative understanding of families current functioning and readjustment post deployment, the theme of reintegration is important as it details strategies utilised by the family to adapt to the reunion. This largely involved the deployed parent intentionally observing changes in the family unit to then allow adjustment of their own behaviour before complete reintegration occurred. When discussed by participants, reintegration generally focused upon adaptations made by the deployed parent to an altered family unit instead of the family as a unit making changes.

Associations between deployment factors and current functioning. The correlational analyses between the predictors of child behaviour difficulties, coping strategies, deployment risk factors, and the outcome measures of current functioning showed several significant associations but no consistent patterns across measures. Increased behavioural difficulties was most prominently associated with decreased positive parenting

for both partners, decreased family communication and satisfaction for the deployed parents, and increased mental health issues for the home parents. Higher coping strategies for both parents were only associated with increased negative parenting for the deployed parents. There were two very surprising findings in the correlational analyses that were supported in the SEM results. First, higher child behaviour problems prior to deployment were significantly associated with lower coping by the deployed parent upon their return. This may be indicative of an adaptation strategy employed by the deployed parent to fit back into the family system. Second, deployment risk was associated with increased perceptions of relationship satisfaction for both parents and lower mental health issues for the deployed parent. This interesting association is supported by the qualitative results, which also indicated that many couples felt that deployment resulted in improved relationships. Generally, this was attributed to the time they spent apart during the deployment, time together on reunion, as well as an increased appreciation or a reassessment of priorities typically due to involvement in a critical incident. In regards to the association between deployment risk and mental health issues, one deployed parent noted that they suffered from “post traumatic growth” disorder. They described significant personal growth due to involvement in active combat through knowing that they could respond appropriately within that particular situation, which was noted as a validation of their vocational training.

The results of SEM analyses were largely similar to correlational analyses, except for the association between coping behaviour as perceived by the deployed parent and both parents’ perception of family communication and satisfaction. This suggests that deployed parents’ perception of family coping behaviour was having a small suppression effect upon family communication and satisfaction, yet this was not significant. However, all other correlations were supported through controlling for additional variables as done through SEM, which adds weight to the interpretation of correlational associations found.

Resilience factors and avenues of support across deployment. As described in the first chapters, across a number of studies and from different theoretical perspectives, extended periods of parental separation from the family is considered a potential risk factor for child development and family adjustment. Resilience is identified in the literature to be the process of mitigating risk factors and negative outcomes (Walsh, 2003). In the present study, parents reported relatively high levels of relationship satisfaction and family communication and satisfaction, suggesting a rather high degree of resilience across the sample. While the correlational and SEM analyses did not identify any consistent associations across current functioning outcomes that pointed to factors that would facilitate resilience. Fortunately, the qualitative results point to a number of possible factors that may have facilitated family adaptation and resilience.

During deployment, positive coping strategies included the maintenance of communication, while the lack of communication was suggested to increase difficulties. Communication allowed members to maintain relationships and comprehend changes that occurred across the deployment. Increased pay, maintenance of structure and routine, along with prior experience and knowledge of the deployment process were also identified as facilitating adaptation. In addition, the presence of community, friend, family, and NZDF support was considered a resilience factor when present. As these factors were present and viewed in a positive light by participants, in regards to aiding their deployment experience they can be considered resilience factors. Alternatively they can be viewed as potential avenues for support if they were not present for families in future deployments.

Facilitation of family transitions across deployment. When considered broadly, the facilitation of adaptations to deployment could be improved through ensuring the above stated resilience factors were present due to their noted importance as viewed by participants. Consequently, if the resilience factors were not present they instead represent support

avenues where factors could be improved or would allow the consideration of additional support to accommodate transitions for family units. As discussed above this could involve the promotion of positive relationships with family, friends, and the community or encouraging the use of structured routines to minimise stress.

Additionally, several participants suggested that several areas of the deployment experience could be improved. These included providing external counselling, physical labour or more practical support, ensuring no relocations surrounding a deployment, and targeted support programmes for teenagers and dual military families. As the study sample is considered experienced, it adds weight to their suggestions as they understand the processes of deployment. An improvement in consistency of general support provided by NZDF across the deployment was also encouraged.

These are domains suggested by participants that would improve the deployment experience, which NZDF could consider to allow adaptation to protocol and support that could improve the experience for families. In addition, it would promote healthy functioning of their personnel, which would improve the army's overall functioning. Communication with the deployed parent was identified as a resilience factor, which was noted to be an area that the NZDF had improved in recent years, as previously a lack of communication had led to difficulties.

Link between research findings and previous research

The following is a discussion of the findings of the current study and how they relate to previous research. In the first subsection, is an examination of the risks associated with separation that are specific to military deployments, which largely concerns the impact of critical incidents and the level of risk associated with deployment upon the family. The second section concerns adaptations across parental separation, which focuses upon how families within the current study adapted. Third, is readjustment after separation, this section

will detail families' current functioning and factors that may have influenced familial readjustment. To finish, is a discussion of the findings as they relate to family systems theory, especially the adaptations made by families and their coalitions within the system.

Risks of separation: factors specific to military deployment. Risk factors of the deployment for the purposes of analyses was a composite variable including length of deployment, rank, risk level, and occurrence of critical incidents. Within the current study, these factors seemed highly relevant as 71.4% of deployed parents experienced a critical incident, and 60.7% were on "high risk" deployments (categorised based upon likelihood of conflict). This suggests that on average the sample did face considerable risks. Through the correlational analyses, deployment risk factors were found to be associated with reduced positive parenting by the deployed parent, which could be indicative of initial difficulties at reunion (Devoe & Ross, 2012; McFarlane, 2009). This may suggest that the deployed parent is not engaging with the family at post deployment and the risk they faced may have increased this possible lack of engagement (Devoe & Ross, 2012). Another potential explanation was emphasised within discussion of deployed parents' behaviour during reintegration, where they initially stood back from responsibilities and discipline until they had adjusted to how the family was functioning. Interestingly, risk was associated with an improved relationship for both parents. This association was emphasised within participants' qualitative descriptions, noting that the improvement was due to reassessment of priorities and the deployed parents acknowledging a renewed sense of appreciation of the importance of family. However, participants stated that the occurrence of critical incidents were difficult due to direct involvement, knowing individuals injured or killed, and increased home parent's worry about their partner's safety.

In addition, deployment risk was associated with less positive mental health screens for the deployed parent and is contrary to previous research, which suggests that as risk

increases as does the likelihood of mental health concerns (Card et al., 2011; Kelley, 1994; Lester et al., 2010). Taft and colleagues (2008) studied 1,512 military personnel shortly prior to returning home from deployment and one or two years after reunion. This study found that deployment risk was associated with an increased likelihood of post-traumatic stress disorder (PTSD); which was linked with lower family adjustment. Suggesting that as risk increased as did the likelihood of mental health diagnoses, which consequently impacted the family. However, the opposite was indicated in the current study. It was found that 32.14% of both parents screened positively on any of the mental health screening measures, this is substantial with about one third of the participants indicating possible mental health issues. The association indicated a decrease in positive screens for the deployed parent due to higher risk, which is made more interesting because of the substantial number of participants possibly affected. However, Taft and colleagues (2008) measured participants at two separate time points with a large number of participants. In contrast, the current study used a cross-sectional design with participants that on average were quite experienced with deployment and military lifestyle. Thus, the deployed parents' decrease in prevalence of mental health issues and both parents' growth in relationships are possibly partially attributable to their experience in adapting to stressful experiences. These associations with deployment risk factors indicate that the study population is quite resilient and has learned to adapt, with indications of positive outcomes in response to what is typically considered a stressor. Additionally, it shows that family readjustment after a deployment can result in positive outcomes, which suggests adjustment of the research population beyond what is typically expected with a return to normality.

Although tentative, these associations allude to positive adaptations that could be representative of 'post traumatic growth', which is conceptualised as a beneficial cognitive or life outcome resulting from a traumatic event (Zoellner & Maercker, 2006). The concept of

post traumatic growth was described by one participant; who perceived personal growth attributed to facing active combat that allowed validation of training as well as providing a sense of excitement. Research on post traumatic growth is still in its infancy, with few systematic examinations of the processes and likelihoods but does pose an interesting interpretation of these results, which would necessitate further research.

Adaptations in response to parental separation. Alterations in child behaviour and coping strategies were perceived by both parents and supports the majority of previous research. In the current study, home parents utilised coping more and viewed behavioural difficulties as present most during deployment and as reduced at post deployment. The home parents' perception that difficulties and coping behaviour reduced to levels comparable to pre deployment may indicate that personally they are less stressed due to now having the support they lacked during deployment. This finding is supported by Pfefferbaum and colleagues (2011), who examined 10 families at pre, during and post deployment in regards to child behaviour. They found that the stage of during deployment represented the highest point for difficulties and that these appeared to subside once the deployed parent returned, supporting the trend perceived by home parents in the current study. It was suggested within their discussion that it would be important to further study the reintegration process and identify if there were potential longer term problems. With research examining changes over time it is difficult to accurately examine when adaptations occur and how long they are present even when not necessarily deemed significant (Suarez-Orozco et al., 2002). This was found within the current study as child behavioural difficulties on average did not reach levels of concern (borderline or above as indicated by a total score of 14 or more), across any of the time points as indicated by established norms. This expected alteration in child difficulties is further supported by Phelps et al. (2010), who examined 137 children with a military parent regarding academic ability across a two year period. Their results indicated that there was

decreased academic achievement associated with a parent being deployed. However, difficulties were within normal ranges of functioning for academic achievement as expected for grade level, did not signify substantial detriment and returned to “normal” levels when the parent was not deployed. Although, Phelps et al. (2010) examined academic ability it still shows an alteration linked with deployment, as shown in the current study’s assessment of child behaviour and coping utilised.

Deployed parents however, viewed post deployment as more difficult when compared to pre deployment. Although this is different to the home parents’ perception it is likely due to their different frames of reference as the deployed parent only has pre deployment as reference to any difficulties that may occur as they were not able to report on child behaviour or family coping during the deployment. This perception of deployed parents is highlighted through a study by Barker and Berry (2009), which indicated that some difficulties were still present at post deployment but they did subside as time passed. In this study, 57 military families with at least one child (under the age of four) were examined at three or four months into a deployment and again four or six weeks after the deployed parent had returned. It was indicated that child behaviour was difficult during the deployment. Children initially appeared confused and distressed at the return of their parent, yet most adapted within the space of three weeks. For some children these difficulties persevered, although this was found to be related to experiencing longer deployments (15 months). Although the difficulties that persisted within the study were attachment based, it indicates that some form of child difficulties may persist at post deployment as was perceived by deployed parents within the current study. This suggests some form of impact on the family system that is persisting into post deployment, as the difficulties faced by one individual can impact the entire system. However, this finding is difficult to disentangle as parents within the current study responded to questions separately, whereas within Barker and Berry’s (2009) study both parents were

queried conjointly in regards to post deployment child behavioural issues. It is possible that the separate responding has led to the different perspectives by parents as they were not able to discuss responses and may have reached a similar level of consensus if they answered together.

Although deployed parents perceived more child difficulties and coping utilised at post deployment, research has emphasised an expected return to normal but often suggests that future research should examine post deployment further to determine long term impacts of deployment. A study conducted by Lester et al. (2010), measured 171 families with recently returned and currently deployed parents. Child behaviour was examined and was found to be in line with community norms, except on measures of anxiety, which were higher than community norms but did not differ between military children regardless of parental deployment status. Potentially indicating a long lasting impact of deployment upon children, however this was not assessed in the current study. Additionally, their study found that parental psychopathology was linked with further child difficulties as was the combined length of parental separation. Child behavioural difficulties at pre deployment were associated with home parent's mental health screens within the current study and are supported by the above study (Lester et al., 2010). Lester et al. (2010) examined both parental and child perceptions to give a wider breadth of information, which may have influenced some of the differences in findings.

In addition, associations were found within the current study between child behavioural difficulties at pre deployment and lower positive parenting from both parents. This suggests that child behaviour impacts the level or quality of parenting provided, with more difficult children potentially eliciting less positive parenting practices. The current study found associations between child behavioural difficulties and the deployed parents' perception of family satisfaction, which indicates a potential impact of child factors upon the

parent and their view of the family. However, it is possible that this association represents difficulty for the deployed parent in rejoining the family unit with child behaviour increasing their perception of poorer family communication and satisfaction because they are not able to reintegrate. As discussed above deployed parents are expected to stand back during initial stages of reintegration, and this association with lowered family communication and satisfaction may represent this initial requirement. The impact of child behaviour upon parents is further emphasised through the association between child behaviour and increased home parent mental health, which is supported through research conducted by Lester et al. (2010). Additionally, a study by Finkel et al. (2003), examined 86 mother-child dyads to find that maternal depressive symptomology was a significant predictor of depressive symptoms within children. Although this study shows an impact of maternal mental health on that of the child, instead of the opposite as indicated by Lester et al. (2010) and the findings of the current study, it shows that the association can be the opposite. Taken together, these results indicate that child based factors can impact the parent or vice versa. However, as the current study is cross sectional the direction of the influence cannot be concluded and the interpretations are speculative of potential reasons for the associations found.

An odd association was found within the current study between child behavioural difficulties and a decreased perception of coping strategies utilised by the deployed parent. This could indicate that coping strategies are reduced by the deployed parent to aid reintegration, with this intentional stepping back from the family being one of the reintegration methods stated by participants. However, it would be expected for more coping to be utilised when child behaviour increased to manage difficulties. Coping strategies utilised as perceived by both parents was linked to increased negative parenting behaviour for the deployed parent. Where this association could be assumed to indicate that more coping behaviour may be utilised in response to stressors. An increase in negative parenting

behaviour due to experiencing more stress or coping to manage makes this association more understandable. However, this is an assumption based upon this association and it is likely to be representative of a more complex process within the family unit but is a possible explanation. As negative parenting includes over reactivity and inconsistent discipline, the association found for the deployed parent could represent unsuccessful attempts at parenting, discipline, and reintegration, which has been suggested in past research to occur during this stage (Esposito-Smythers et al., 2011; Card et al., 2011). This is also supported by qualitative descriptions of deployed parents' reintegration methods as stated above, as well as indicating what may occur during this reintegration at the initial stages of regaining roles.

Within the qualitative information of the current study regarding adaptations that are made, participants do not describe the impact of separation but instead ways in which they adapted. During the deployment, home parents indicated that factors such as communication, social supports, structure and experience aided in easing the separation and allowed the maintenance of a sense of normality. While post deployment was discussed in terms of reintegration methods such as deployed parents standing back, understanding that adjustment may take time, and that this may be improved by communication during the deployment.

Readjustment after separation. Participants' perceptions of current functioning are assumed to be indicative of readjustment that has occurred after separation, which is similar across both parents. As discussed above, several couples perceived improvements in their relationship satisfaction, which was supported quantitatively and qualitatively. Positive parenting behaviour was higher than negative parenting behaviour for both parents, indicating an increased likelihood of more positive parenting interactions. Additionally, relationship satisfaction was considered high based upon the total possible score of 90, which both parents were close to reaching suggesting particularly satisfied relationships between parents. Family communication and satisfaction is the only measure of current functioning where norms have

been calculated, as participants' scored highly it likely demonstrates that families are functioning well. However, positive mental health screens were common but as the other measures imply families that are functioning it appears that these factors may not have had an impact at the group level upon measures of current functioning.

In support of these findings that families are possibly functioning well is a study by Morris and Age (2009), where 65 military children's behaviour was examined. Their results suggested that although children were at higher risk for developing symptoms of psychopathology than the community norms; they were still faring within normal limits. Although the study targeted children, it adds some support to the possibility that families appear to not be impacted by the deployment to a level commonly believed, which suggested significant detriment compared to the general population. Some research has indicated that few difficulties exist once the deployed parent returns or are not long lasting (Kelley, 1994; Pfefferbaum et al., 2011; Morris & Age, 2009). A meta-analysis by Card et al. (2011) emphasised this point through the systematic examination of 16 studies on the impact of deployment to find that statistically there is little impact of deployment upon children. Yet when difficulties existed, they typically did not differ from community norms. Based upon the possible total scores it can be assumed that families within the current study are functioning well on most measures, excluding mental health screens. However, the high proportion of positive mental health screens could indicate that within some facets, a portion of families have not fully adapted to the reunion but this would require follow up measures to assess the likelihood of this scenario or length of time that difficulties persisted.

As current functioning is measured after or within the post deployment stage, the families' methods of reintegration are likely to impact how they are functioning currently. The higher rates of current functioning may be linked to methods of coping utilised during the deployment that could have minimised issues through the deployment, such as

communication, structured routines, external supports, and substantial experience. Constant communication allowed the deployed parent to maintain their role within the family. This has been identified through research within divorce (Lipscomb, 2011), incarceration (Yocum & Nath, 2011), and migration domains (Zentgraf & Chinchilla, 2012), where positive communication from the separated parent can reduce the potential negative outcomes for children and by extension the family system. One particular family noted that communication during deployment allowed them to discuss smaller issues so that they did not exacerbate into significant problems. Another family stated that not having the opportunity for regular communication on an earlier deployment had led to issues during reintegration and made them more aware of its importance in their most recent deployment.

Participants stated that the maintenance of structure and routines was beneficial, which has been identified in past research to enhance family adjustment during a major change such as deployment (Walsh, 2003; Riggs & Riggs, 2011). Additionally, social support has been found to buffer the potential impacts of deployment (Faber et al., 2008; for a review see Figley, 1993) and participants' mention of substantial support groups signifies the presence of these buffers. A cross sectional survey of over 17,000 air force personnel with families indicated that connection with the community was associated with greater family adaptation, which was amplified when families lived within the military base (Bowen, Mancini, Martin, Ware, & Nelson, 2003). This suggests that support from the community can act as an important source of resilience, which was present for most families within the current study. Barker and Berry's (2009) examination of 57 families suggested that community support was beneficial for children facing deployment. They also identified that relocation was deemed negative due to removing families from these vital support networks. This finding was supported by several families in the current study who discussed the negative impact of relocation on the family unit. Additionally, it was suggested by

participants that there should be a period of time around a deployment when the NZDF should not relocate families due to the disruption this can cause. On the contrary, research by Weber and Weber (2005) found that within a group of 159 adolescents with parents employed by the defence force (army, air force, navy), as the number of family relocations increased, child behavioural difficulties reduced. As military research varies between participation in studies either being voluntary or conscripted, the differences in research results potentially indicate that the population is vast with a varied number of effects that could be family dependent. The factor of substantial experience may attribute to the positive outcome related to relocation within Weber and Weber's (2005) study, as the average number of relocations was approximately four. Therefore, suggesting a bias sample as participants were experienced and adaptations are likely to have become easier to make. Experience is considered present in participants of the current study but it cannot be increased readily as it is an eventual outcome of the military lifestyle. As resilience is considered the process of adapting to difficulties and stress successfully (Wilson et al., 2011); experience would be considered integral as it strengthens each family's ability to navigate a deployment and as participants are quite experienced it is likely that this may have aided across the deployment cycle.

Associations within the current study between current functioning measures included a link between positive parenting behaviour and family communication and satisfaction, and negative parenting behaviour being linked with lower family communication and satisfaction. Suggesting the impact of parenting behaviour on the entire family system and was proposed within the meta-analysis by Card et al. (2011). Interestingly, positive parenting behaviour of the deployed parent was linked to reduced relationship satisfaction for the home parent, which could indicate an over investment by the deployed parent into the parent-child relationship that could lead to diminished relationship satisfaction through a lack of

reconnection. As the deployed parent is negotiating their position within the family, the juggling of relationships may be difficult initially at post deployment until adaptation has successfully occurred and normality has returned, which would signify the end of the post deployment period (DeVoe & Ross, 2012; Esposito-Smythers et al., 2011; Card et al., 2011). Relationship satisfaction was also associated with family communication and satisfaction; further alluding to the impact of parental factors on overall family functioning. This indicates that happy parents are good parents and that this leads to a better functioning family.

These associations indicate that family readjustment after a deployment is complex and can be impacted by a number of variables, with the reunion representing the beginning of these alterations. As measures of current functioning are all considered at the same time point conclusions around the direction of influence cannot be made, yet it is probable that factors such as parenting behaviour can impact family functioning or vice versa. While factors such as higher parental and family satisfaction can be considered as resilience factors based upon the associations suggesting positive correlations that may show improvements that are made. Whereas factors discussed in terms of aiding during deployment or the reintegration process, are likely to also be considered as promoting resilience and positive family functioning due to their presence and previous research supporting their benefit.

Summary. The current research findings suggest that few difficulties may be present for participants at post deployment. It is important to note that although perceived child behavioural difficulties change across deployment they are still within normal ranges as indicated by norms. Coping utilised to manage stress also alters across the deployment cycle in a similar fashion to child behaviour. The various measures of current functioning indicate that families appear to function well, when considered in terms of possible total scores of each measure, but this cannot be fully concluded as norms have not been established for majority of the measures. The number of positive mental health screens indicates that there is

still a substantial amount of individuals being impacted within this domain after a deployment. Links between independent and dependent variables indicate that there are a number of possible contributors to family functioning after experiencing separation, which would require further research to clarify directionality. The associations of risk with parental relationship and deployed parent mental health, are interesting and deemed indicative of substantial adaptations to what is typically considered a stressor, which may suggest post traumatic growth. Although the term of post traumatic growth was only mentioned specifically by one participant, research conducted within the domain indicates that any positive adaptation to a detrimental event can be considered indicative of post traumatic growth (Zoellner & Maercker, 2006). Indicators of resilience within the population can be considered as substantial contributors, as these families appear to have adapted well to deployment and these factors are likely to have played a part in the process. However, as the research sample is experienced and participated voluntarily, the results that have been discussed are considered tentative in understanding the adaptations families make to separation and reunion.

Link between research findings and family systems theory

As discussed in Chapter ONE, family systems theory (Bowen, 1985; Minuchin, 1974) was considered an important theoretical perspective when examining families, particularly in regards to understanding system wide adaptation to change, as is common with military families. The following is a discussion of the results of the present study in relation to family systems theory. Changes in equilibrium or adaptations are presumed to occur within families experiencing deployment, as typically roles, boundaries, coalitions, and transactions between family members are altered when one parent is not present for a significant period of time. This was noted to have occurred in the present study as participants acknowledged these changes, which are focused within the qualitative theme of reintegration. Deployed parents

stated that they typically stood back from the family unit to comprehend changes that had occurred, before stepping back into any of their roles, specifically when making decisions or disciplining children. However, they were still required to re-establish coalitions; with several participants having time off during school holidays, which they found to benefit the coalition reformation, especially with their child(ren).

Family systems theory recognises that disruptions in equilibrium and family coalitions can result in stress. These disruptions occur initially when the deployed parent leaves as the family changes from a complete system to partial one, which occur again when reunited because the family unit has adapted to functioning as a partial system. During the deployment families may have reached stability, which is disrupted when the deployed parent returns into the family unit and represents another required adaptation that may result in various difficulties (Sheppard et al., 2010; McFarlane, 2009). Home parents in the current study stated that the formation of structured routines allowed them to function and manage with decreased support during the deployment. This may represent the stability that was proposed by Sheppard et al. (2010), with it being stable due to being able to manage the required responsibilities. As alterations to the families equilibrium is experienced at two time points, adjustment issues might arise. In the current study, potential difficulties were measured in the form of child behavioural difficulties and the utilisation of coping strategies to manage stress, which were considered across the deployment cycle. Alterations across the deployment were perceived, yet child behaviour on average did not reach levels signifying difficulty when compared to established norms. This suggests that although disruption and alterations occurred, participants in the current study may have managed these changes effectively. The measures of current functioning are supportive of this assumption, which as discussed above indicate that families are functioning well across all measures except mental health screens. As measures consider post deployment levels of functioning; assumptions about stability

during the deployment cannot be made. Therefore, it is likely that families within the current study were able to effectively adapt across the cycle and manage the required adaptations. Conversely, a large portion of research indicates that children express difficulties in a number of areas during deployment and initially at post deployment. However, as families in the current study are considered experienced this may have improved their ability to adapt to separation and reunion with few difficulties.

Minuchin's (1974) theory of equilibrium, proposes that adaptations at a family level are easier if families have available alternative patterns, or established methods of coping. In the present study, participants identified a number of factors that they perceived as facilitating their adaptation to the deployment period in the form of increased structure, external support, and the utilisation of extra financial resources. These are likely to have aided in making adaptations and represented their ability to alter their transactional patterns to continue functioning as a family system. It is possible that experience increased families' adaptability, as they are able to refine their methods over time in ways that worked the best for them. As not all participants used all methods that were considered above, it is likely that each family had their own way of adapting to the separation and reunion that they may have developed previously.

When the deployed parent is absent families are in a difficult position as they are still required to accomplish the same functions, as well as meet the needs of individuals and the collective family. Thus, adaptations must be made, and these adaptations could minimise the deployed parents' role within the family system temporarily. This is considered an issue as outlined in a study by Faber et al. (2008) where 34 families were interviewed. The authors found that during the deployment, families closed their boundaries as roles and responsibilities were redistributed among remaining members, adapting to the absence of the deployed parent. However, this was an issue initially when the deployed parent returned, as

roles had to be redistributed again among the family to include the deployed parent. Participants within the study by Faber et al. (2008), indicated that this was difficult at first but they were able to adapt across time, which was promoted through open communication between partners. As within the current study the process of reintegration required redistribution of roles with the deployed parent having to intentionally negotiate this process. Additionally, communication during the deployment was mentioned by several participants to be important in maintaining a sense of connectedness, which is proposed to make reintegration easier as relationships are maintained.

As families indicated high levels of family satisfaction and communication, it can be assumed that they are cohesive with strong bonds and relationships within the system (Lavee & Olson, 1991, Olson, 2011). A family's cohesion would be affected by the removal of one family member due to the deployment, as the individual has a decreased ability to interact with the system and maintain coalitions as they would if present. As participants within the current study stated, maintaining communication between the deployed parent and the family allowed these coalitions to be maintained. Therefore, making reintegration easier as the family was still connected and the deployed parents preserved some sense of their position within the family system. As family systems theory acknowledges that systems are maintained through communication and a sense of connectedness or cohesion, maintaining these in the face of separation becomes important in preserving the family system.

In summary, family systems theory indicates that the need to adapt to any changes may result in difficulties for families. However, within the current study this did not appear to be the case as indicated by measures of current functioning remaining relatively high (compared to possible totals). Families were required to negotiate roles, boundaries, and relationships to manage the separation then renegotiate them again at reunion. Within the current study, majority of families appeared to adapt effectively, through the use of external

supports and by developing routines during deployment. Additionally, the knowledge of sound methods to reintegrate the deployed parent back into the family would have played a part. As highlighted in the contemporary family systems theories it appears that families in the current study were cohesive, remaining connected across the deployment and afterwards, which was promoted through continued communication. This signifies that families are adaptable, readily shifting their equilibrium in response to separation and reunion with few difficulties.

Strengths of the Current Study

There are a number of strengths to the present study, most of which are centered around the focus on the family system, as opposed to individuals or dyads, and the attempt to explore adaptation to separation across the various phases of the deployment cycle. These broad strengths are illustrated more specifically in four ways.

First, this study is one of the few to examine the whole family instead of looking at the personnel, children, or partner couple alone. Most military research has a tendency to examine individuals or single relationships instead of the totality of the family (Card et al., 2011; Morris & Age, 2009). The current study aimed to amend this through directing questions at how the family as a whole responded to the deployment. Through the assessment of dyadic data it was possible to examine for cross partner effects and agreement. The current study did find some interesting cross partner associations and substantial agreement on a number of measures (FCOPES, positive parenting behaviour, relationship satisfaction, family communication and satisfaction, mental health). Therefore, suggesting a mutual perception of how the family experienced deployment. Additionally this builds upon research into the effects of separation on the family unit, which can be extended to other populations (e.g., incarceration, migration) through understanding the separation and reunion processes.

Second, apart from the internal NZDF research this is one of the few studies to examine military families within New Zealand. The most readily available military research is from the United States, who operate differently to the New Zealand military and are substantially larger (NationMaster, n.d.). Although the occupation and risks are similar there are differences that would be apparent between the populations. This could include culture, training methods, support provided, or communities. A specific example of difference is that the United States military tend to experience longer deployment in comparison to New Zealand, where some deployments are nine or more months compared to New Zealand's military deployments that are rarely longer than six months. There is a likelihood that this would further alter results gained and the possible interpretations.

Third, the use of a mixed method approach within this area of research is beneficial as it provided a range of results that considered the experience of deployment for military families from different approaches. Qualitative results and quantitative results complemented one another. This enhanced the interpretation of interesting findings as they relate to participants, such as increased relationship satisfaction due to higher risk being supported by both qualitative and quantitative data. Prior research has noted that difficulties exist across deployment but little examination has been done concerning the processes of adaptation (Taft et al., 2008).

Fourth, the study utilises two different military bases within New Zealand that allows for a greater generalisation within the NZDF; than if only one base were examined. Initially only one military base was to be surveyed but this was expanded to two military bases that were geographically separated. Although there are few differences between participants from these areas, it allowed a greater level of generalisation to be assumed. The similarity between bases represents that the experience of deployment is potentially similar across different military camps within New Zealand for experienced families.

Limitations of the Current Study

The current study contains several limitations and as such the findings should be interpreted with caution in light of these. First, the small sample size can be considered a significant limitation. Originally only the Burnham military base was to be surveyed, but due to low response rate and participant numbers the decision was made to increase this sample size by examining families within Linton. However, the sample size is still considered small and has led to the consideration of some results regardless of statistical significance but these are just a small portion of the current findings.

Second, the studied population on average is quite experienced. This is a limitation as the study focuses upon those who had substantial experience and appeared to function well in a number of areas (except mental health). This limitation could not be sufficiently remedied as participation was voluntary, which may reduce the representativeness and generalisability of the sample. Yet suggestions and results can be considered somewhat representative of how experienced families adapt to separation, indicating sources of resilience that could be improved if not initially present. Therefore, allowing the support of families that are not functioning well through implementing factors that experienced families noted as beneficial.

Third, the use of a cross sectional research method was a limitation due to recall bias, as participants are recalling past events surrounding a deployment and therefore may be skewed based upon their experience. The retrospective nature of the study can make the temporal relationship between variables difficult to fully assess. Although, assumptions can be made on influential factors, conclusions cannot be made without longitudinal research, which was not utilised due to time constraints.

Fourth, the use of parental reports as representations for the family's experience is a limitation as there may be biases present. As with any report there are differences in

perception between individuals, with it being likely that the parents perceive the deployment and family functioning differently to one another or the child(ren). However, this bias was partially overcome through utilising reports from both parents to widen the understanding and perspective of the deployment, which would be more representative of the actual experience compared to the response of one parent.

Applications, suggestions and directions for future research

Although this research has contributed to the field regarding the effects of separation on families, further emphasis on the family unit and causality within future research is required. Findings have indicated that certain factors are associated with post separation functioning, yet there are various other factors that need to be examined more closely and across a significant length of time to allow conclusions of causality and predictability. A discussion of possible future research and applications will follow.

First, this study complemented previous research in the understanding that there are alterations in the family unit across a deployment cycle, specifically in child behaviour and coping strategies. However, for processes of adaptation to be understood more clearly a longitudinal study would be required. Ideally, a large number of families would be measured regularly across all phases of a deployment cycle, which would allow for comparisons to be made between and within families. With data from multiple family members, an understanding would be gained on how the process of adaptation to separation and reunion occurs at the family level. This would allow conclusions to be made regarding the direction of causality among variables from pre deployment, to deployment, to post deployment. Sampling methods within a longitudinal study would allow the inclusion of families that may not adapt well to the deployment, due to measurement beginning before deployment occurs. Additionally, this would allow a number of other factors to be examined in relation to separation, reunion and how adaptations occur.

Second, as discussed through Chapter ONE, there are a number of analogous situations where separation is experienced and parallels could be drawn. With further research into understanding the impact of separation on the family unit, it could allow comparisons between populations. Furthermore, if several populations were researched within the same study, comparisons could be made if the same measures were utilised. An initial step towards this would be the direct comparison of several research studies into these specific populations in the form of a meta-analysis or review.

Lastly, clinical implications from the current study relate to the findings of several associations and resilience factors, which focus on the parental and family relationship. In families where separation and reunion occur, if a family is unable to effectively adapt, it is likely that supporting the home parent or parental relationship could lead to beneficial outcomes and aid the entire system through positive transactions. Specifically, communication with the deployed parent could benefit the home parent and child(ren), while making reintegration easier as previously discussed. Additionally, encouraging the use of structured routines for the family during the deployment could be beneficial, as suggested by participants within the current study. External supports could also aid families that may not be coping, where family, friend, and community support could be sought or improved. Although causality has not been established, the associations and supporting qualitative information indicate that these factors are important to the functioning of the family unit. Enhancing resilience factors across the deployment cycle could result in benefits for families, as discussed above and would be recommended for improving adaptation across a large number of families facing any sort of separation. As the NZDF currently provides information along these lines, it may benefit from making several revisions in light of the findings or by specialising this information to each family.

Conclusion

In conclusion, as with the majority of military research the results of the current study both compliments and contradicts previous research. It is difficult to develop a common understanding in research, as processes impacting an individual vary greatly and can include a large number of factors. This becomes increasingly difficult with families as each individual is affected differently, yet one individual can impact how the system experiences the stressor through varied transactions and coalitions, adding further complexity. Based upon the results of the current study there is an indication that few difficulties are experienced during and post deployment, in these seemingly higher functioning families. The current study found some interesting results, specifically the positive outcomes associated with increased deployment risk. However, as families within the current study are regarded as quite experienced it is understandable that adaptations to deployment can be beneficial. In addition, a web of associations was found between measures of current functioning, highlighting the complexity of reintegration with numerous factors impacting one another with the direction of influence not being clear. Associations between deployment factors and current functioning also highlighted that a number of factors can be considered influential in altering the outcomes for families after separation.

Within both quantitative and qualitative results; importance was placed upon the parental relationship. Improvement in this relationship within both sections was noted as an odd result of deployment risk or involvement in critical incidents. As this result is supported and based on other associations it may indicate that this could be improved to promote successful adaptations within families, and that it may be influential in determining whether or not the family is able to adapt. Although, it only concerns the parents, this relationship can impact the entire family system as each parent has a relationship with their children, and if one relationship is negative it can impact the individuals' transactions with other members

within the system. Additionally, research within the domain of how military families adapt to separation and reunion could be generalised to other family situations in which separation occurs when the process is understood to a greater degree. Within the current study a large number of potential resilience factors have been indicated by participants, and gives a plethora of areas where families struggling could be supported to increase the chance of positive adaptation or at least allow them to survive the separation. This enhances the clinical implications of the current research, where when families are presenting with issues a number of resilience factors could be improved to aid them across a deployment cycle. As the current study was exploratory, instead of helping to close the gap within military research regarding how families adapt and the study of family units, the results have highlighted that the process is complex and for a clear understanding to be gained a longitudinal study is required. However, it does give an insight into how families experienced with separation may adapt. Additionally, the associations of risk with parental relationship and mental health is interesting with the clear suggestion that some families instead of adapting to a separation may be able to draw benefits from the time apart, beyond what may occur if they were not separated. Longitudinal research although time intensive and costly, would help to highlight where problems present, how long they persist, the process of adaptations, as well as outcomes and predictors of deployment adaptation success at multiple time points. The potential research that can be conducted is enormous but would be remarkably beneficial to families who face separation and reunion, leading to improved functioning as these families navigate a stressful event that is becoming increasingly common within our current society.

References

- Achenbach, T. M. (1991). *Manual for the CBCL/4-18 and 1991 Profile*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Ainsworth MD, Blehar M, Waters E, Wall S (1978). *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale NJ: Lawrence Erlbaum Associates.
- Akhlaq, A., Malik, N. I., & Khan, N. A. (2013). Family Communication and Family System as the Predictors of Family Satisfaction in Adolescents. *Science Journal of Psychology*, 2013, 1-6.
- Altieri, M. J., & von Kluge, S. (2009). Family functioning and coping behaviors in parents of children with autism. *Journal of Child and Family Studies*, 18(1), 83-92.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Anderson S.A., & Sabatelli R.M. (1995). *Family Interaction: A Multigenerational Developmental Perspective*. Boston, MA: Allyn & Bacon.
- Bahr, S. J., Armstrong, A. H., Gibbs, B. G., Harris, P. E., & Fisher, J. K. (2005). The reentry process: How parolees adjust to release from prison. *Fathering: A Journal of Theory, Research, and Practice about Men as Fathers*, 3(3), 243-265.
- Barker, L. H., & Berry, K. D. (2009). Developmental issues impacting military families with young children during single and multiple deployments. *Military medicine*, 174(10), 1033-1040.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bavelas, J. B., & Segal, L. (1982). Family systems theory: Background and implications. *Journal of Communication*, 32(3), 99-107.

- Beavers, W. R. (1981). A Systems Model of Family for Family Therapists. *Journal of Marital and Family Therapy*, 7(3), 299-307.
- Beavers, W. R., & Voeller, M. N. (1983). Family models: Comparing and contrasting the Olson circumplex model with the Beavers systems model. *Family Process*, 22(1), 85-97.
- Bertalanffy, L. V. (1967). *Robots, men and minds: Psychology in the modern world*. New York: George Braziller.
- Bocknek, E. L., Sanderson, J., & Britner IV, P. A. (2009). Ambiguous loss and posttraumatic stress in school-age children of prisoners. *Journal of Child and Family Studies*, 18(3), 323-333.
- Boss, P. (1999). *Ambiguous loss: Learning to live with unresolved grief*. Cambridge, MA: Harvard University Press.
- Bowen, G. L., Mancini, J. A., Martin, J. A., Ware, W. B., & Nelson, J. P. (2003). Promoting the Adaptation of Military Families: An Empirical Test of a Community Practice Model. *Family Relations*, 52(1), 33-44.
- Bowen, M. (1985). *Family therapy in clinical practice*. New York: J. Aronson.
- Bowlby, J. (1969). *Attachment and loss*. London: Hogarth Press.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), *Annals of child development: Vol. 6. Six theories of child development: Revised formulations and current issues* (pp. 187-249). London: JAI Press.
- Bronfenbrenner, U. (Ed.). (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks: Sage Publications.

- Caligiuri, P. M., Hyland, M. M., Joshi, A., & Bross, A. S. (1998). Testing a theoretical model for examining the relationship between family adjustment and expatriates' work adjustment. *Journal of Applied Psychology*, 83(4), 598.
- Card, N. A., Bosch, L., Casper, D. M., Wiggs, C. B., Hawkins, S. A., Schlomer, G. L., & Borden, L. M. (2011). A meta-analytic review of internalizing, externalizing, and academic adjustment among children of deployed military service members. *Journal of Family Psychology*, 25(4), 508.
- Castro, F. G., Kellison, J. G., Boyd, S. J., & Kopak, A. (2010). A methodology for conducting integrative mixed methods research and data analyses. *Journal of mixed methods research*, 4(4), 342-360.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20(1), 37-46.
- Corbin, J., & Strauss, A. (Eds.). (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Los Angeles: Sage Publications.
- Darling, N. (2007). Ecological systems theory: The person in the center of the circles. *Research in Human Development*, 4(3-4), 203-217.
- De Pedro, K. M. T., Astor, R. A., Benbenishty, R., Estrada, J., Smith, G. R. D., & Esqueda, M. C. (2011). The children of military service members challenges, supports, and future educational research. *Review of Educational Research*, 81(4), 566-618.
- DeVoe, E. R., & Ross, A. (2012). The parenting cycle of deployment. *Military medicine*, 177(2), 184-190.
- Esposito-Smythers, C., Wolff, J., Lemmon, K. M., Bodzy, M., Swenson, R. R., & Spirito, A. (2011). Military youth and the deployment cycle: emotional health consequences and recommendations for intervention. *Journal of Family Psychology*, 25(4), 497.

- Faber, A. J., Willerton, E., Clymer, S. R., MacDermid, S. M., & Weiss, H. M. (2008). Ambiguous absence, ambiguous presence: a qualitative study of military reserve families in wartime. *Journal of Family Psychology*, 22(2), 222.
- Fiedler, N., Ozakinci, G., Hallman, W., Wartenberg, D., Brewer, N. T., Barrett, D. H., & Kipen, H. M. (2006). Military deployment to the Gulf War as a risk factor for psychiatric illness among US troops. *The British Journal of Psychiatry*, 188(5), 453-459.
- Figley, C. R. (1993). Coping with stressors on the home front. *Journal of Social Issues*, 49(4), 51-71.
- Finkel, L. B., Kelley, M. L., & Ashby, J. (2003). Geographical Mobility, Family, and Maternal Variables as Related to the Psychosocial Adjustment of Military Children. *Military Medicine*, 168(12), 1019-1024.
- Fleiss, J. L. (1973). *Statistical methods for rates and proportions*. New York: Wiley.
- Fletcher, G. J., Simpson, J. A., & Thomas, G. (2000). The measurement of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26(3), 340-354.
- Fonagy, P., Gergely, G., Jurist, E. L., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self*. New York: Other Press.
- Gindling, T. H., & Poggio, S. (2012). Family Separation and Reunification as a Factor in the Educational Success of Immigrant Children. *Journal of Ethnic and Migration Studies*, 38(7), 1155-1173.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of child psychology and psychiatry*, 38(5), 581-586.

- Goodman, R., & Scott, S. (1999). Comparing the Strengths and Difficulties Questionnaire and the Child Behavior Checklist: is small beautiful?. *Journal of abnormal child psychology*, 27(1), 17-24.
- Hale, D. C. (1988). The impact of mothers' incarceration on the family system: Research and recommendations. *Marriage & Family Review*, 12(1-2), 143-154.
- Halpern, D. F., & Tan, S. J. (2009). Combining world and family: from conflict to compatible. In J. H. Bray & M. Stanton (Eds.), *The Wiley-Blackwell handbook of family psychology* (pp. 564-575). Malden, MA: Wiley-Blackwell.
- Hargrove, D. S. (2009). Psychotherapy based on Bowen family systems theory. In J. H. Bray & M. Stanton (Eds.), *The Wiley-Blackwell handbook of family psychology* (pp. 286-299). Malden, MA: Wiley-Blackwell.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of personality and social psychology*, 52(3), 511.
- Hetherington, E. M. (1989). Coping with family transitions: Winners, losers, and survivors. *Child development*, 60, 1-14.
- Hetherington, E. M., & Kelly, J. (2002). *For better or for worse: Divorce reconsidered*. New York: W.W. Norton.
- Hetherington, E. M., Cox, M., & Cox, R. (1985). Long-term effects of divorce and remarriage on the adjustment of children. *Journal of the American Academy of Child Psychiatry*, 24(5), 518-530.
- Hill, R. (1945). The returning father and his family. *Marriage and Family Living*, 7(2), 31-34.
- Hondagneu-Sotelo, P. (1992). Overcoming patriarchal constraints: The reconstruction of gender relations among Mexican immigrant women and men. *Gender & Society*, 6(3), 393-415.

- Huebner, A. J., Mancini, J. A., Wilcox, R. M., Grass, S. R., & Grass, G. A. (2007). Parental Deployment and Youth in Military Families: Exploring Uncertainty and Ambiguous Loss. *Family Relations*, 56(2), 112-122.
- Jablonska, B., & Lindberg, L. (2007). Risk behaviours, victimisation and mental distress among adolescents in different family structures. *Social psychiatry and psychiatric epidemiology*, 42(8), 656-663.
- Jensen, P. S., Watanabe, H. K., Richters, J. E., Cortes, R., Roper, M., & Liu, S. (1995). Prevalence of mental disorder in military children and adolescents: Findings from a two-stage community survey. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34(11), 1514-1524.
- Kashani, J. H., Allan, W. D., Dahlmeier, J. M., Rezvani, M., & Reid, J. C. (1995). An examination of family functioning utilizing the circumplex model in psychiatrically hospitalized children with depression. *Journal of Affective Disorders*, 35(1), 65-73.
- Kelley, M. L. (1994). Military-induced separation in relation to maternal adjustment and children's behaviors. *Military Psychology*, 6(3), 163.
- Klein, N. C., Alexander, J. F., & Parsons, B. V. (1977). Impact of family systems intervention on recidivism and sibling delinquency: a model of primary prevention and program evaluation. *Journal of Consulting and Clinical Psychology*, 45(3), 469.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The Phq-9. *Journal of general internal medicine*, 16(9), 606-613.
- Lavee, Y., & Olson, D. H. (1991). Family types and response to stress. *Journal of Marriage and the Family*, 53, 786-798.
- Lee, S. Y., & Song, X. Y. (2012). *Basic and advanced Bayesian structural equation modeling: With applications in the medical and behavioral sciences*. Chichester, UK: John Wiley.

- Lester, P., Peterson, K., Reeves, J., Knauss, L., Glover, D., Mogil, C., Duan, N., Saltzman, W., Pynoos, R., Wilt, K., & Beardslee, W. (2010). The long war and parental combat deployment: Effects on military children and at-home spouses. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(4), 310-320.
- Lipscomb, R. C. (2011). Strategies to improve fathers' involvement with their children's development and academic achievement. *Race, Gender & Class*, 18(3-4), 253-267.
- Lowenstein, A. (1986). Temporary Single Parenthood-The Case of Prisoners' Families. *Family Relations*, 35(1), 79-84.
- MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1(4), 173-181.
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. *Attachment in the preschool years: Theory, research, and intervention*, 1, 121-160.
- Malekpour, M. (2007). Effects of attachment on early and later development. *The British Journal of Development Disabilities*, 53(105), 81-95.
- Mansfield, A. J., Kaufman, J. S., Engel, C. C., & Gaynes, B. N. (2011). Deployment and mental health diagnoses among children of US Army personnel. *Archives of pediatrics & adolescent medicine*, 165(11), 999-1005.
- Mathis, R. D., & Yingling, L. C. (1990). Divorcing versus intact families on the circumplex model: An exploration of the dimensions of cohesion and adaptability. *Family Therapy: The Journal of the California Graduate School of Family Psychology*, 17(3), 261-272.
- McCubbin, H., Larson, A., & Olson, D. (1987). F-COPES Family Crisis Oriented Personal Scales. In H. McCubbin & A. Thompson (Eds.), *Family assessment inventories for research and practice*. Madison, WI: University of Wisconsin, Madison.

- McFarlane, A. C. (2009). Military deployment: the impact on children and family adjustment and the need for care. *Current Opinion in Psychiatry*, 22(4), 369-373.
- Minuchin, S. (1974). *Families & family therapy*. Cambridge, MA: Harvard University Press.
- Moore, K. A., Jekielek, S. M., & Emig, C. (2002). *Marriage from a Child's Perspective: How Does Family Structure Affect Children, and What Can We Do About It?*. Washington, DC: Child Trends.
- Morris, A. S., & Age, T. R. (2009). Adjustment among youth in military families: The protective roles of effortful control and maternal social support. *Journal of Applied Developmental Psychology*, 30(6), 695-707.
- Munton, A. G., & Reynolds, S. (1995). Family functioning and coping with change: A longitudinal test of the circumplex model. *Human Relations*, 48(9), 1055-1072.
- Murray, J., & Farrington, D. P. (2005). Parental imprisonment: effects on boys' antisocial behaviour and delinquency through the life-course. *Journal of Child Psychology and Psychiatry*, 46(12), 1269-1278.
- Murray, M. (2003). Narrative psychology. In J.A. Smith (Ed.), *Qualitative psychology: a practical guide to research methods*. (pp. 111-131). London: Sage.
- NationMaster. (n.d.). *Military: New Zealand and United States compared*. Retrieved from <http://www.nationmaster.com/country-info/compare/New-Zealand/United-States/Military>
- Nesmith, A., & Ruhland, E. (2008). Children of incarcerated parents: Challenges and resiliency, in their own words. *Children and Youth Services Review*, 30(10), 1119-1130.
- New Zealand Defence Force. (2014). *Personnel summary*. Retrieved from <http://www.nzdf.mil.nz/personnel-records/personnel-branch/>

- Noller, P., & Fitzpatrick, M. A. (1990). Marital communication in the eighties. *Journal of Marriage and the Family*, 52, 832-843.
- Olson, D. H. (1995). *Family Satisfaction Scale*. Minneapolis, MN: Life Innovations.
- Olson, D. H. (2011). FACES IV and the circumplex model: Validation study. *Journal of marital and family therapy*, 37(1), 64-80.
- Olson, D. H., & Gorall, D. M. (2003) Circumplex model of marital and family systems. In F. Walsh (Ed.) *Normal Family Processes* (3rd Ed). New York: Guilford (pp. 514-547).
- Olson, D. H., Gorall, D. M., & Tiesel, J. W. (2004). *Faces IV package*. Minneapolis, MN: Life Innovations.
- Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1983). Circumplex model of marital and family systems: VI. Theoretical update. *Family process*, 22(1), 69-83.
- Palmer, C. (2008). A theory of risk and resilience factors in military families. *Military Psychology*, 20(3), 205-217.
- Pfefferbaum, B., Houston, J. B., Sherman, M. D., & Melson, A. G. (2011). Children of National Guard troops deployed in the global war on terrorism. *Journal of Loss and Trauma*, 16(4), 291-305.
- Phelps, T., Dunham, M., & Lyons, R. (2010). Military Deployment and Elementary Student Achievement. *Educational Research Quarterly*, 33(4), 37-52.
- Pianta, R. C., & Harbers, K. L. (1996). Observing mother and child behavior in a problem-solving situation at school entry: Relations with academic achievement. *Journal of School Psychology*, 34(3), 307-322.
- Prins, A., Ouimette, P., Kimerling, R., Cameron, R. P., Hugelshofer, D. S., Shaw-Hegwer, J., Thrailkill, A., Gusman, F. D., & Sheikh, J. I. (2004). The primary care PTSD screen (PC-PTSD): development and operating characteristics. *International Journal of Psychiatry in Clinical Practice*, 9(1), 9-14.

- Pruett, M. K., & Barker, R. (2009). Children of divorce: new trends and ongoing dilemmas. In J. H. Bray & M. Stanton (Eds.), *The Wiley-Blackwell handbook of family psychology* (pp. 463-474). Malden, MA: Wiley-Blackwell.
- Raudino, A., Woodward, L. J., Fergusson, D. M., & Horwood, L. J. (2012). Childhood conduct problems are associated with increased partnership and parenting difficulties in adulthood. *Journal of abnormal child psychology*, 40(2), 251-263.
- Riggs, S. A., & Riggs, D. S. (2011). Risk and resilience in military families experiencing deployment: The role of the family attachment network. *Journal of family psychology*, 25(5), 675-687.
- Sheppard, S. C., Malatras, J. W., & Israel, A. C. (2010). The impact of deployment on US military families. *American Psychologist*, 65(6), 599-609.
- Smets, A. C., & Hartup, W. W. (1988). Systems and symptoms: Family cohesion/adaptability and childhood behavior problems. *Journal of Abnormal Child Psychology*, 16(2), 233-246.
- Smith, J.A. & Osborn, M. (2003). Interpretative phenomenological analysis. In J.A. Smith (Ed.), *Qualitative psychology: a practical guide to research methods*. (pp. 51-80). London: Sage.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological methodology*, 13(1982), 290-312.
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, 166(10), 1092-1097.
- Statistics New Zealand. (2014). *Population clock*. Retrieved from http://www.stats.govt.nz/tools_and_services/population_clock.aspx

- Suarez-Orozco, C., Bang, H. J., & Kim, H. Y. (2011). I felt like my heart was staying behind: Psychological implications of family separations & reunifications for immigrant youth. *Journal of Adolescent Research*, 26(2), 222-257.
- Suarez-Orozco, C., Todorova, I. L., & Louie, J. (2002). Making up for lost time: The experience of separation and reunification among immigrant families. *Family process*, 41(4), 625-643.
- Sun, Y., & Li, Y. (2002). Children's Well-Being during Parents' Marital Disruption Process: A Pooled Time-Series Analysis. *Journal of Marriage and Family*, 64(2), 472-488.
- Taft, C. T., Schumm, J. A., Panuzio, J., & Proctor, S. P. (2008). An examination of family adjustment among Operation Desert Storm veterans. *Journal of Consulting and Clinical Psychology*, 76(4), 648.
- Teo, A., Carlson, E., Mathieu, P. J., Egeland, B., & Sroufe, L. A. (1996). A prospective longitudinal study of psychosocial predictors of achievement. *Journal of School Psychology*, 34(3), 285-306.
- U.S. Army. (1992). *U.S. Army Field Manual (FM 100-17, chap. 4)*. Retrieved from http://library.enlisted.info/field-manuals/series-2/FM100_17/CH4.PDF
- Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family process*, 42(1), 1-18.
- Weber, E. G., & Weber, D. K. (2005). Geographic relocation frequency, resilience, and military adolescent behavior. *Military medicine*, 170(7), 638-642.
- Wilson, S. R., Wilkum, K., Chernichky, S. M., MacDermid Wadsworth, S. M., & Broniarczyk, K. M. (2011). Passport toward success: Description and evaluation of a program designed to help children and families reconnect after a military deployment. *Journal of Applied Communication Research*, 39(3), 223-249.

- Woodward, L., Fergusson, D. M., & Belsky, J. (2000). Timing of parental separation and attachment to parents in adolescence: Results of a prospective study from birth to age 16. *Journal of Marriage and Family*, 62(1), 162-174.
- Yocum, A., & Nath, S. (2011). Anticipating father reentry: A qualitative study of children's and mothers' experiences. *Journal of Offender Rehabilitation*, 50(5), 286-304.
- Zentgraf, K. M., & Chinchilla, N. S. (2012). Transnational family separation: A framework for analysis. *Journal of Ethnic and Migration Studies*, 38(2), 345-366.
- Zill, N., Morrison, D. R., & Coiro, M. J. (1993). Long-term effects of parental divorce on parent-child relationships, adjustment, and achievement in young adulthood. *Journal of Family Psychology*, 7(1), 91-103.
- Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology - A critical review and introduction of a two component model. *Clinical psychology review*, 26(5), 626-653.

Appendices

Appendix A: Ethics Approval from University of Canterbury



HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2013/32

15 May 2013

Wade Stent
School of Health Sciences
UNIVERSITY OF CANTERBURY

Dear Wade

The Human Ethics Committee advises that your research proposal "Post deployment and family adjustment: an exploratory study" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 8 May 2013.

Best wishes for your project.

Yours sincerely

A handwritten signature in black ink, appearing to read 'L. MacDonald'.

Lindsey MacDonald
Chair
University of Canterbury Human Ethics Committee

Appendix B: Research Approval from New Zealand Defence Force

NEW ZEALAND DEFENCE FORCE Defence Personnel Executive MINUTE

S35D9


19 Apr 13

ACPERS (Through: COMJFNZ)


COVER MINUTE TO EXTERNAL RESEARCH APPLICATION FROM WADE STENT

1. Enclosures 1 & 3 are a signed research deed proforma and application from Mr Wade Stent. This research relates to the experiences of the families of deployed personnel. The study aims to describe family adjustment after military deployment, including, identification of resilience, identification of potential avenues of support for families and make recommendations to the NZDF, based on findings.
2. The method requires an interview with military families, as well as the completion of a number of validated psychometrics. This will then be analysed in light of a number of theoretical models.
3. The proposal has been reviewed by both the Organisational Research Cell and the Directorate of Psychology.
4. The topic appears to have merit for the NZDF and the methodology appears to be sound.
5. Therefore, it is requested that COMJ and AC PERS;
 - a. Note a possible requirement for support from local DPE (Psychologists) and 1BDE staff (DSO and local units).
 - b. Note that NZDF have indicated we cannot provide any funds to support the research.
 - c. Approve the research.


A.B. MACDONALD
MAJ
J11


K.R. SHORT
AVM
COMJFNZ

22 APR 13


H. DUFFY
BRIG
AC PERS

23/4/13

RECOMMENDED/ ~~NOT RECOMMENDED~~


APPROVED/ ~~NOT APPROVED~~

Appendix C: Information Sheet

Family Adjustment and Post Deployment Study Information Sheet

Persons in Charge: Wade Stent, Masters of Child and
Family Psychology Thesis Student,
University of Canterbury.
Email: wade.stent@pg.canterbury.ac.nz

Dr Myron Friesen, Thesis Supervisor.
Tel: +64 3 364 2987 ext. 8914
Email: Myron.friesen@canterbury.ac.nz



About the Family Adjustment and Post Deployment Study

You are invited to participate in a research study that is examining how military families adjust once a parent returns from deployment. This will involve you and your partner completing an interview and questionnaire about the adjustments that you as a family experience before, during, and after military deployment. The research only concerns military personnel and their family.

What Does the Study Involve?

If you and your partner agree to take part in the study, it will involve a 90 minute interview at a location that is most convenient for you; this could be your home, within Burnham military camp, at the University of Canterbury, or another place of your choice. You and your partner will be asked to complete a questionnaire about the experiences of your family before, during and after the military deployment period. Some of the questions ask about your thoughts, feelings, behaviours and perceptions of your family relationships and functioning around the deployment period. These questions may feel quite personal and sensitive to some people. If you feel uncomfortable with the questions or find them to be emotionally difficult, you are free to take a break from the interview, move on to other questions, or withdraw from participation. Most importantly, your responses are kept completely confidential, and no one outside of the primary research team (Mr. Stent and Dr. Friesen) will have access to your individual information. In appreciation of your participation, you will be in the draw to win 1 of 5 \$100 grocery vouchers.

Participation

Your participation in this study is **entirely voluntary** (*your choice*). Your participation does not influence any relationship you have with the NZDF or the University of Canterbury. If you chose to participate, but later change your mind, you are free to withdraw from the study at any time, for any reason. However, once data has been included in the Thesis and submitted, withdrawing information will become impossible. You do not have to answer all the questions and you may stop the interview at any time. Under the Privacy Act 1993, it is possible for you and your partner to access and/ or correct the information provided, if you consider it necessary. This study has been reviewed and approved by the NZDF and the University of Canterbury Human Ethics Committee. If you should have any questions or concerns about this study you may contact the researchers at the top of this page or the Human Ethics Committee by emailing *human-ethics@canterbury.ac.nz*.

Confidentiality

All information that you provide for this study is treated in the utmost confidence. Your identity and the identity of members of your family will not be revealed in any reports based on this study. All interview scripts will be identified only with a unique code number. Any identifying information (for example, email or postal addresses and consent forms) is kept separate from study data. These files will not be released to third parties and will remain completely confidential. The information collected for this study will be published in the form of a thesis for the University of Canterbury, a summary report for the NZDF and possibly in an academic journal. When results are reported, they are described at the group level across participants, generally as averages or percentages across a number of families. If in a report a participant's response is quoted, it will not contain any identifying information and will be referred to only by a study ID number.

Feedback and Results

If you wish, you are able to request a summary of the study from the researchers at the top of this page. This will be a summarised version of the complete thesis to allow for an understanding of the study and the outcomes or conclusions that were reached.

Thank you for taking part in this study, the information you provide is much appreciated

Appendix D: Consent Form

Family Adjustment and Post Deployment Study Consent Form

Persons in Charge: Wade Stent, Masters of Child and
Family Psychology Thesis Student,
University of Canterbury.
Email: wade.stent@pg.canterbury.ac.nz

Dr Myron Friesen, Thesis Supervisor.
Tel: +64 3 364 2987 ext. 8914
Email: Myron.friesen@canterbury.ac.nz



In order to participate in this study, please read the following carefully, sign your name and write today's date in the space provided.

I understand that:

- I will be asked to complete an interview about family adjustment to military deployment and the post-deployment period.
- Participating in this research study is voluntary (my choice)
- I have the right to withdraw from the study at any time or request that my information be withdrawn from the study. However, once data has been included in the Thesis and submitted, withdrawing information will become impossible.
- The ending interview will be audio-recorded and this audio file will be stored securely and anonymously. Also my personal information will be kept confidential in any reports resulting from this research project.
- I consent to the publication of the information that I provide as part of this study, with the provision that any identifying and personal individual information will be kept confidential.

NZDF Personnel Name: _____

Signature: _____

Partner's Name: _____

Signature: _____

Date: _____

Participant ID #: _____

Appendix E: Debrief Sheet

Family Adjustment and Post Deployment Study: Debrief

Persons in Charge: Wade Stent, Masters of Child and
Family Psychology Thesis Student,
University of Canterbury.
Email: wade.stent@pg.canterbury.ac.nz

Dr Myron Friesen, Thesis Supervisor.
Tel: +64 3 364 2987 ext. 8914
Email: Myron.friesen@canterbury.ac.nz



It is important for us to get feedback on your experience as a participant with this questionnaire and interview. Doing so helps us to better understand your perspective and enables us to provide a better experience in the future as well as helping us to minimize or eliminate the potential for participants to feel uncomfortable or distressed. We will work through these questions together.

- How are you feeling about participating in this study?
- Was there anything that you found interesting about the questions you were asked?
- Were there any questions that you felt were difficult to answer? If so, what made them difficult?
- Do you have any other questions regarding this study?

Debrief on Details of Study:

The purpose of this study was to examine how a military family adjusts once the deployed parent returns. This involved both of you completing questionnaires and an interview about your experience before, during and after the deployment. The study focused on exploring the experience of a military family once they are reunited with the deployed parent. We were also interested to see if there were any specific characteristics or factors that allowed you or others to adapt better to the reunion.

Most research in the past often overlooked this stage of the deployment cycle, which is why this study focused on examining how families such as yours; coped or adjusted once the deployed parent returned.

The responses that you both have given, along with other families in a similar situation may not benefit you directly but may be used by the NZDF to improve this transition for others in the future. It may also be extended to help other families outside of the military going through a similar transition, where a parent has been away for a significant amount of time.

As a reminder the information that you have provided here today will be kept confidential, however if you so choose we can remove your data from the sample.

If reflecting on the deployment cycle has caused some distress or emotional arousal we may refer you to the NZDF to receive further support or assessment at their discretion and to what level is required, or you can contact the NZDF personnel indicated below if you require further support. This individual will then co-ordinate with personnel within Burnham to provide the support you may require.

Alana MacDonald
MAJ
J11 Psychologist
J1, HQ JFNZ
2 Seddul Bahr Road
Trentham, UPPER HUTT
Phone 04 529 6121

Thank you for your participation in this study, your input is very much appreciated. If you are interested in obtaining a copy of the research when it is completed, have any other queries, comments or questions please feel free to contact the primary investigator noted below.

Wade Stent,
Masters of Child and Family Psychology Thesis Student,
University of Canterbury.
Email: wade.stent@pg.canterbury.ac.nz

Appendix F: Quantitative Measures

Strength and Difficulties Questionnaire (SDQ) (Goodman, 1997).

Read the following statements and respond as to how your child/ren behaves during the different stages of deployment. If you are the deployed parent you can indicate with a “---” for the ‘During Deployment’ row that you are unable to comment on this time point due to not being there.

Not True	Somewhat True	Certainly True
0	1	2

	Pre Deployment	During Deployment	Post Deployment
1. Considerate of other people’s feelings			
2. Restless, overactive, cannot stay still for long			
3. Often complains of headaches, stomach-aches or sickness			
4. Shares readily with other children, for example toys, treats, pencils			
5. Often loses Temper			
6. Rather solitary, prefers to play alone			
7. Generally well behaved, usually does what adults request			
8. Many worries or often seems worried			
9. Helpful if someone is hurt, upset or feeling ill			
10. Constantly fidgeting or squirming			
11. Has at least one good friend			
12. Often fights with other children or bullies them			
13. Often unhappy, depressed or tearful			
14. Generally liked by other children			
15. Easily distracted, concentration wanders			

Not True	Somewhat True	Certainly True
0	1	2

	Pre Deployment	During Deployment	Post Deployment
16. Nervous or clingy in new situations, easily loses confidence			
17. Kind to younger children			
18. Often lies or cheats			
19. Picked on or bullied by other children			
20. Often volunteers to help others (parents, teachers, other children)			
21. Thinks things out before acting			
22. Steals from home, school or elsewhere			
23. Gets along better with adults than with other children			
24. Many fears, easily scared			
25. Good attention span, sees chores or homework through to the end			

Family Crisis Orientated Personal Evaluation Scales (F-COPES) (McCubbin, Larsen, & Olson, 1987).

The following statements are about how families respond situations during the different stages of deployment; please think about how you and your family respond to challenges across these stages and answer accordingly. If you are the deployed parent you can indicate with a “---“ for the ‘During Deployment’ column that you are unable to comment on this time point.

Strongly Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Strongly Agree
1	2	3	4	5

	Pre Deployment	During Deployment	Post Deployment
1. Sharing our difficulties with relatives			
2. Seeking encouragement and support			
3. Knowing we have the power to solve major problems			
4. Seeking information and advice from persons in other families who have faced the same or similar problems			
5. Seeking advice from relatives			
6. Seeking assistance from community agencies and programs designed to help families in our situation			
7. Knowing that we have the strength within our own family to solve our problems			
8. Receiving gifts and favours from neighbours			
9. Seeking information and advice from the family doctor			
10. Asking neighbours for favours and assistance			
11. Facing the problems “head-on” and trying to get solutions right away			
12. Watching television			
13. Showing that we are strong			

Strongly Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Strongly Agree
1	2	3	4	5

	Pre Deployment	During Deployment	Post Deployment
14. Attending church services			
15. Accepting stressful events as a fact of life			
16. Sharing concerns with close friends			
17. Knowing luck plays a big part in how well we are able to solve family problems			
18. Exercising with friends to stay fit and reduce tension			
19. Accepting that difficulties occur unexpectedly			
20. Doing things with relatives			
21. Seeking professional counselling and help for family difficulties			
22. Believing we can handle our own problems			
23. Participating in church activities			
24. Defining the family problems in a more positive way so that we do not become too discouraged			
25. Asking relatives how they feel about problems we face			
26. Feeling that no matter what we do to prepare, we will have difficulty handling problems			
27. Seeking advice from a minister			
28. Believing if we wait long enough, the problem will go away			
29. Sharing problems with neighbours			
30. Having faith in God			

Parenting Behaviour (Raudino, Woodward, Fergusson, & Horwood, 2012).

Read the following statements and answer with how you respond to your child/ren currently.

Strongly Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Strongly Agree
1	2	3	4	5

1. I give comfort and understanding when my child is upset	
2. When my child misbehaves I raise my voice and yell	
3. I am sympathetic when my child is hurt or annoyed	
4. When my child asks why he has to do so, I tell him, "Because I said so!" or "I am the parent and I want you to!"	
5. I state punishments to my child but then I do not actually do them	
6. I encourage my child to be curious to explore and question things	
7. I punish my child by taking away privileges with little, if any, explanation	
8. I know the names of my child's friends	
9. Things build up and I do things I don't mean to	
10. I am very attentive to my child's non-verbal signals for help and support	
11. I insult my child, say mean things or call my child names	
12. I am unsure how to solve my child's misbehaviour	
13. I bribe my child with rewards to bring about compliance	
14. I do realize when my child is upset or worried about something	
15. I tell my child that I appreciate what he/she tries and accomplishes	
16. My child and I have warm and intimate times together	
17. I normally can read and interpret correctly my child's signals for help and understanding	

Strongly Disagree	Moderately Disagree	Neither agree nor disagree	Moderately Agree	Strongly Agree
1	2	3	4	5

18. I am afraid that disciplining my child for misbehaviour will cause my child not to like his/her parents	
19. I threaten my child with punishment more often than giving it	
20. I find it interesting and educational to be with my child for long periods	
21. I argue with my child	
22. I give in to my child when s/he causes commotion about something	
23. I explode in anger towards my child	
24. I often get into long arguments with my child	
25. I feel uncomfortable when my child is needy and clings to me	
26. I express affection by hugging, kissing, and holding my child	
27. I am responsive to my child's feelings or needs	
28. I find it difficult to discipline my child	
29. I often use bad language, curse, swear	
30. I apologise to my child if I make a mistake in my parenting	
31. When my child is crying or emotionally upset, I do not withdraw from the relationship	
32. I am good at knowing when my child needs my help or support and when he/she would rather handle things alone	
33. I encourage my child to talk about his /her troubles	
34. I praise my child when he/she is good	
35. I joke and play with my child	
36. I get so frustrated or angry that my child can see I'm upset	

The Perceived Relationship Quality Components scale (PRQC) (Fletcher, Simpson, & Thomas, 2000).

The following questions are about your relationship with your partner. How do you feel about the relationship currently?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

1. How content are you with your relationship?	
2. How connected are you to your partner?	
3. How much do you love your partner?	
4. How much do you trust your partner?	
5. How much can you count on your partner?	
6. How dedicated are you to your relationship?	
7. How sexually intense is your relationship?	
8. How passionate is your relationship?	
9. How dependable is your partner?	
10. How devoted are you to your relationship?	
11. How happy are you with your relationship?	
12. How committed are you to your relationship?	
13. How much do you adore your partner?	
14. How intimate is your relationship?	
15. How much do you cherish your partner?	
16. How satisfied are you with your relationship?	
17. How lustful is your relationship?	
18. How close is your relationship?	

Family Communication Scale (Olson, Gorrall, & Tiesel, 2004; Olson, 2011).

Thinking about your family currently, how much do you agree with the following statements?

Strongly Disagree	Generally Disagree	Undecided	Generally Agree	Strongly Agree
1	2	3	4	5

1. Family members are satisfied with how they communicate with each other	
2. Family members are very good listeners	
3. Family members express affection to each other	
4. Family members are able to ask each other for what they want	
5. Family members can calmly discuss problems with each other	
6. Family members discuss their ideas and beliefs with each other	
7. When family members ask questions of each other, they get honest answers	
8. Family members try to understand each other's feelings	
9. When angry, family members seldom say negative things about each other	
10. Family members express their true feelings to each other	

Family Satisfaction Scale (Olson, 1995; Olson, 2011).

Thinking about your family, how satisfied are you with:

Very Dissatisfied	Somewhat Dissatisfied	Generally Satisfied	Very Satisfied	Extremely Satisfied
1	2	3	4	5

1. The degree of closeness between family members	
2. Your family's ability to cope with stress	
3. Your family's ability to be flexible	
4. Your family's ability to share positive experiences	
5. The quality of communication between family members	
6. Your family's ability to resolve conflicts	
7. The amount of time you spend together as a family	
8. The way problems are discussed	
9. The fairness of criticism in your family	
10. Family members concern for each other	

Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2001).

In the last 2 weeks, how often have you had any of the following experiences?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or have little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself- or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite- being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
10. If you have given a score of '1' or more to any of the above experiences, how <i>difficult</i> have these made it for you to do your work, take care of things at home, or get along with other people?	Not at all _____ Somewhat difficult _____ Very difficult _____ Extremely difficult _____			

Generalised Anxiety Disorder scale (Spitzer, Kroenke, Williams, & Lowe, 2006).

In the last 2 weeks, how often have you had any of the following experiences?

	Not at all sure	Several Days	Over half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

If you have given a score of '1' or more to any of the above experiences, how *difficult* have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all _____

Somewhat difficult _____

Very difficult _____

Extremely difficult _____

Primary Care Post Traumatic Stress Disorder (PTSD) screen (Prins et al, 2004).

Some people have experiences that are so emotionally intense that it interferes with their thinking, or their sleep, or their emotions and behaviour.

1. Have you ever experienced something, which in the past month, gave you nightmares or caused you to think about it when you did not want to?

YES/NO

2. Have you ever experienced something, which in the past month, interfered with your thinking even when you tried hard not to think about it or went out of your way to avoid situations that reminded you of it?

YES/NO

3. Have you ever experienced something, which in the past month, made you feel constantly on guard, watchful or easily startled?

YES/NO

4. Have you ever experienced something, which in the past month had you feeling numb or detached from others, activities, or your surroundings?

YES/NO

Appendix G: Qualitative Measures

Demographics.

1. What is the date of birth of:

Military parent: _____

Male/Female

Civilian (or Secondary Military) parent: _____

Male/Female

2. Gender and date of birth of child/ren: _____

3. Family Structure (Tick the one that applies to your family:

- ☐ Biological (all children in family are biologically related)
- ☐ Step Family (not all children are biologically related to one another)
- ☐ Adoptive (children in family are adopted, not directly related to parents; this could include kinship adoption)

4. Ethnic Background (Tick those that apply to your family)

- ☐ NZ European
- ☐ NZ Māori, Iwi (Specify): _____
- ☐ Other European (Specify): _____
- ☐ Pacific Island (Specify): _____
- ☐ Asian (Specify): _____
- ☐ Other (Specify): _____

5. Civilian Parent's current occupation: _____

6. Enlistment date of Primary Military parent: _____

7. Current Military Rank/ Position: _____

8. Number of Deployments across Military career: _____

Average Length of each Deployment: _____

9. Length of latest Deployment: _____

10. Date of latest Deployment: _____

11. Notice given before latest Deployment: _____

12. Role & Rank during latest Deployment: _____

13. Risk level of latest Deployment:

- ☐ High
- ☐ Medium
- ☐ Low

14. During the latest Deployment were you given any mid deployment leave in order to visit your family?

YES/NO

15. Were there any 'Critical Incidents' during this deployment?

YES/NO

16. Other than Deployment/s and training exercises has the family experienced any other significant separation/s:

YES/NO

If YES, how many: _____

How long was/were the separation/s: _____

Qualitative Questions following the Strength and Difficulties Questionnaire (SDQ) (Goodman, 1997).

- **(If you have more than 1 child)** Is it a specific child whose behaviour changes or do they all behave in a similar manner? Which child's behaviour changes more?
- Why do you think this is?
- How does this specific child act differently to the others?
- Are these changes in your child/ren's behaviour beneficial to family adjustment or detrimental, does it help to balance out the changes of deployment or not?
- How are they beneficial or detrimental?
- How do you and your partner communicate to the child/ren regarding deployment? Do they understand what is happening or is further discussion needed so that they understand?

Qualitative Questions following the Family Crisis Orientated Personal Evaluation Scales (F-COPES) (McCubbin, Larsen, & Olson, 1982).

- Were there ways your family coped with the difficulty of deployment that were not identified; what were they?
- How did they help you cope
- How do you feel about the support offered to your family across the deployment cycle by the NZDF
- What kind of support did they offer? How did it help?
- Do these strategies to cope change across deployment or when the military parent is home? If so, how do they change?
- **(Deployed parent)** Although you are away during deployment are there ways in which you help the family adjust and cope: what do you do to help?
- How often did you have contact with one another during the deployment? What methods did you use? Did you find this beneficial?

Qualitative Questions concerning Māori cultural factors.

If you identified yourself and your family as Māori, read through and answer the following questions in regards to your experience during your most recent deployment cycle.

- In what ways did your iwi and/ or extended whanau provide extra support during the deployment or post-deployment period?
- How does your culture influence you and your family's adjustment across the deployment cycle?
- What role does your culture play in you and your family's life?
- Please describe any cultural activities you and your family participates in that you feel are important (eg- visiting Marae, Kapa Haka, Hangi, learning Te Reo, researching Whakapapa). Did this help during the deployment cycle?
- How does the NZDF take your culture into account when providing support to you and your family across your most recent deployment cycle?

Semi structured Interview questions.

- How difficult did your family find the deployment? [What specific problems did your family face? What made it easy/ hard?]
- How did your family in particular adapt to the change? [What did this involve]
- What were some positives that resulted from the deployment? [Ways in which things improved/ changed for the better? Whether before, during or after]
- **(If experienced Deployment before)** How did the experience of deployment differ from last time? [(e.g. less children, stronger/ weaker relationship with partner). Were there other things/ events that were happening along with the deployment? Were you more or less prepared? What lessons had you learned from previous deployments?]